

NIOSH

Science Awards 2018

James P. Keogh Award

for Outstanding Service in
Occupational Safety and Health

Alice Hamilton Award

for Excellence in
Occupational Safety and Health

Bullard-Sherwood

Research-to-Practice (r2p) Award

for Outstanding Application of
Occupational Safety and Health Research

Plain Language Award

Director's Intramural Award

for Extraordinary Science

April 26, 2018

1 p.m. EDT | 10 a.m. PDT | Pittsburgh, PA

NIOSH Science Awards 2018

Program

Introduction

John Howard, M.D., NIOSH Director

James P. Keogh Award

Alice Hamilton Award

Education and Guidance
Engineering and Controls
Epidemiology and Surveillance
Exposure and Risk Assessment
Methods and Laboratory Science

Bullard-Sherwood r2p Award

Knowledge
Intervention
Technology

Plain Language Award

Original
Before and After

Director's Intramural Award for Extraordinary Science

Distinguished Career Scientist
Early Career Scientist
Scientific Support

Closing Remarks

Reception immediately following the program

Information about the nomination process may be found on the Office of the Associate Director for Science website at <http://od.niosh.cdc.gov/ADSO/Default.htm>.



James P. Keogh Award

NIOSH is pleased to recognize a current or former employee each year for outstanding service to the field of occupational safety and health. This award honors the contributions made by public health workers who fight long odds to achieve safer and healthier workplaces.

James P. Keogh, M.D., was a tireless advocate for worker safety and health who died in June 1999 at the age of 49. His earliest work in academic medicine identified dimethylaminopropionitrile as the causal agent in an outbreak of bladder neuropathy in the 1970s.

Dr. Keogh was able to make this determination because, unlike many of the clinicians initially contacted by the workers, he took their complaints seriously and applied clear public health principles to his investigation. Throughout his life, he listened carefully to workers, characterized hazards and diseases, and then fearlessly worked to identify compensation for the individual and prevention strategies for others. Dr. Keogh was instrumental in the inclusion of construction workers in the Maryland Occupational Safety and Health lead standard, a full decade before the federal standard did the same. He was a leading medical educator who always focused on the need to incorporate clinical compassion with public health prevention. His most outstanding legacy, however, was his fierce determination to put knowledge into practice to benefit the worker.

2018 James P. Keogh Award for Outstanding Service in Occupational Safety and Health

Peter “Pete” Kovalchik



Mr. Kovalchik has been instrumental in developing a strategic direction for research that revolves around disaster preparedness, disaster prevention, and disaster response. Most recently, the disaster preparedness research developed guidance on the integration of refuge alternatives in underground coal mines. Mr. Kovalchik has also led the research focused on the integration of lifesaving applications with regards to the buildup of heat and humidity inside an occupied chamber, which can lead to heat stress related illnesses, the structural integrity of the chambers and their ability to withstand high pressures generated during explosions, and maintaining safe breathable levels of air by monitoring and purging contaminated air that enters the chamber as miners enter. The findings from this research have been instrumental in guiding the mining industry and have been cited in guidance and criteria documents.

Another area in which Mr. Kovalchik has led life-saving research has been in proximity detection, bringing new technologies to mining to solve a problematic cause of fatalities and severe injuries to mine workers. In his current role, Mr. Kovalchik has led the development of technology that can be installed on mining equipment, which can sense the location and proximity of mine workers and warn the miner or de-energize the equipment when the miner is in danger. This technology is now being mandated for use by the Mine Safety and Health Administration.

Mr. Kovalchik has also focused on fostering partnerships to improve the transfer of this knowledge to the industry to achieve greater relevance and impact by establishing workshops to present research findings to key stakeholders. Mr. Kovalchik has championed the use of these workshops to reach a wide variety of stakeholders and promote a dynamic environment where researchers can fully engage with the stakeholders they are committed to serve.

In conclusion, Mr. Kovalchik has leveraged workforce development initiatives to lead relevant and impactful research. His exceptional leadership and technical expertise have contributed to develop a program that is recognized among the mining community for its ability to conduct timely research to influence regulations and practices to enhance health and safety. Mr. Kovalchik has tirelessly advocated for the mining industry throughout the course of his career and his exceptional track record of service in occupational safety and health has created a legacy rooted on scientific excellence and stakeholder engagement.



Alice Hamilton Award

Many of the first laws and regulations passed to improve the health of workers were the direct result of the work of one dedicated and talented woman, Alice Hamilton, M.D. Born into a prominent family in Indiana (her sister was the well-known classicist, Edith Hamilton), Dr. Hamilton graduated from medical school at the University of Michigan in 1893. After accepting a teaching position at the Women's Medical School of Northwestern University in 1897, she moved into Jane Addams' Hull House, in Chicago. There she opened a well-baby clinic for poor families in the local settlement house neighborhood. As she acquainted herself with the families, she learned of their pains, strange deaths, lead palsy, and "wrist drop," and of the high numbers of widowed women. Encouraged by the reformers of Hull House, she began to apply her medical knowledge to these social problems and thus began her scientific inquiry into occupational health, for which she became known.

Dr. Hamilton quickly realized that although progress in understanding occupational illness and disease was being made in Europe, little was written or understood about such conditions in the United States. In 1908, she published one of the first articles on occupational disease in this country, and she was soon a recognized expert on the topic. Starting in 1910, under the sponsorship initially of a commission of the State of Illinois and later the Federal Bureau of Labor Statistics, she conducted a series of brilliant explorations of occupational toxic disorders. Relying primarily on "shoe leather epidemiology" and the emerging laboratory science of toxicology, she pioneered occupational epidemiology and industrial hygiene in the United States. Her findings were so scientifically persuasive that they caused sweeping reforms, both voluntary and regulatory, to improve the health of workers.

In 1919, Dr. Hamilton was appointed Assistant Professor of Industrial Medicine at Harvard Medical School, becoming the first female faculty member at Harvard University. Between 1924 and 1930, she also served for two terms on the Health Committee of the League of Nations. When she retired from Harvard at the age of 66, she became a consultant to the U.S. Division of Labor Standards and served as president of the National Consumers League.



Bullard-Sherwood Research-to-Practice (r2p) Award

NIOSH presents the Bullard-Sherwood r2p Award to recognize outstanding efforts by its scientists and their partners in applying occupational safety and health research to prevent work-related injury, illness, and death. The award is named in honor of two distinguished individuals who made significant contributions to workplace injury and illness prevention.

Edward W. Bullard designed the first “hard hat” as protective headgear for miners. Shortly after returning from serving in World War I, Mr. Bullard combined his experience with doughboy Army helmets and his understanding of customer needs to develop the “Hard Boiled Hat.” The name was derived from the use of steam during the hat manufacturing process. In the early 1930s, Joseph Strauss, the engineer in charge of constructing the Golden Gate Bridge, requested that Mr. Bullard adapt his mineworker helmet to help protect bridge workers from falling rivets. The bridge site became the first designated “Hard Hat Construction Area.” Today, about six million hard hats are sold annually throughout the world to protect workers. Bullard’s family-owned company, now entering its fifth generation, still produces many of those hard hats.

R. Jeremy (Jerry) Sherwood successfully merged research and industrial hygiene by inventing the first practical personal sampling pump in the late 1950s. He identified a need for sampling pumps that could be worn by workers and not impede their work processes. Until then, sampling was done on an area basis, or an industrial hygienist followed a worker while carrying heavy, bulky, short-term sampling equipment. Using the newly developed personal sampling pump, he demonstrated that area sampling often severely underestimated worker exposures. Within a few years, personal sampling pumps became the staple in industrial hygiene work that they are today. Sherwood also developed a miniature sampler for sulfur dioxide, and his research on respirators led to the first fit testing. While at the International Labour Organization, and later at the World Health Organization, he put his knowledge and research experiences into practice by training others in occupational safety and health, particularly in developing countries. This became one of his greatest passions, and many workers around the world have benefitted from his efforts.

2018 Plain Language Award



Eight years ago, President Obama signed the Plain Writing Act of 2010. The law requires that federal agencies use “clear Government communication that the public can understand and use.” NIOSH encourages plain language in all of its communication products but puts special emphasis on fact sheets, brochures and web pages. The NIOSH Plain

Language Award, established in 2017, recognizes NIOSH communication products that demonstrate excellence in applying plain language principles on these types of communication products.

Awards for winner and honorable mention are given in two categories:

Original recognizes a NIOSH webpage, brochure or fact sheet created originally using plain language principles.

Before and After recognizes a revised NIOSH webpage, brochure or factsheet that includes both an original, difficult to read document, and the revised version that uses plain language principles. Judges considered the improvements.

Director's Intramural Award for Extraordinary Science



The Director's Intramural Award for Extraordinary Science recognizes outstanding contributions by intramural scientists and support staff to science excellence at NIOSH. Science excellence is the foundation upon which NIOSH generates new knowledge, interventions, and technologies to ensure safe and healthful work for all. A monetary award augments the discretionary budget of the recipient for the following fiscal year.

Individuals eligible for nomination for this award include current NIOSH staff in the following Divisions, Laboratories, and Offices:

- Division of Applied Research and Technology
- Division of Compensation Analysis and Support
- Division of Safety Research
- Division of Surveillance, Hazard Evaluations, and Field Studies
- Education and Information Division
- Health Effects Laboratory Division
- National Personal Protective Technology Laboratory
- Pittsburgh Mining Research Division
- Respiratory Health Division
- Spokane Mining Research Division
- Western States Division
- World Trade Center Health Program Division

The scientific contributions proposed as the basis for nomination may include only those activities and endeavors undertaken at NIOSH. Past winners of the award may not be nominated again for the same category. Individuals in the Office of the Director, except as noted above, are not eligible for this award.

Categories for the Director's Intramural Award for Extraordinary Science

Distinguished Career Scientist is a permanent employee or fellow who has made extraordinary scientific contributions in his or her field of work. The monetary award is a \$10,000 supplement to the winner's project CAN.

Early Career Scientist is a permanent employee or fellow who has received a masters or doctorate in a scientific discipline within the 5 years prior to nomination and has made extraordinary individual research and scientific contributions in his or her field of work. The monetary award is a \$5,000 supplement to the winner's project CAN.

Scientific Support is for a technical or administrative staff member who provides invaluable contributions to the successful completion of NIOSH scientific activities. The monetary award is a \$2,500 supplement to the winner's project CAN.



**Delivering on the Nation's promise:
safety and health at work for all people
through research and prevention**