

# NIOSH

## Science Awards 2016

### Award Winners

#### **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

#### **Director's Intramural Award**

for Extraordinary Science

April 28, 2016

# NIOSH Science Awards 2016

## Program Itinerary

Introduction

John Howard, M.D., NIOSH Director

James P. Keogh Award

Keynote Speaker

Dr. Anne Schuchat, MD

Principal Deputy Director  
Centers for Disease Control  
and Prevention

Rear Admiral, U.S. Public Health Service

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*

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 one 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.



## Anne Schuchat, M.D.

---

Dr. Schuchat began her public health career in 1988 when she came to CDC as an Epidemic Intelligence Service Officer. She was director of CDC's National Center for Immunization and Respiratory Diseases from 2006 to 2015. Other CDC leadership posts include acting director of the National Center for Infectious Diseases and the Center for Global Health; chief of the Respiratory Diseases Branch, and chief health officer for CDC's 2009 H1N1 pandemic influenza response. Schuchat was the initial medical director of ABCs—the Active Bacterial Core surveillance of the Emerging Infections Program Network and spearheaded prevention of newborn infection from group B streptococcal disease in the 1990s. She also served as CDC's interim deputy director for Science and Program in early 2009. She was promoted to Rear Admiral in the United States Public Health Service in 2006 and earned a second star in 2010. Schuchat was elected to the Institute of Medicine of the National Academy of Sciences in 2008.

Globally, Dr. Schuchat has worked in West Africa on meningitis, pneumonia, and Ebola vaccine trials, in South Africa on surveillance and prevention projects, and in China on Beijing's SARS emergency response. She has authored or co-authored more than 230 scientific articles, book chapters, and reviews. Her contributions have been recognized by receipt of the USPHS Meritorious Service Medal, the American Public Health Association's Maternal and Child Health Young Investigator Award, the USPHS Physician Research Officer of the Year, and an Honorary Doctorate in Science from Swarthmore College. Dr. Schuchat graduated with highest honors from Swarthmore College and with honors from Dartmouth Medical School and completed her residency and Chief residency in Internal Medicine at NYU's Manhattan VA Hospital.



## Alice Hamilton, M.D., 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 is 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 while some progress in understanding occupational illness and disease was being made in Europe, little was written or understood about occupational disease conditions in the United States. In 1908, she published one of the first articles on occupational disease in this country and 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 have 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, and 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 of this invention, personal sampling pumps became the staple in industrial hygiene work that they are today. He 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, Mr. Sherwood 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.

# 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 assure safe and healthful work for all. Winners will receive a monetary award that 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:

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

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 will be 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 will be 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 will be 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**