

Mark A. Rothstein, J.D.
Keynote Speaker



Mark A. Rothstein holds the Herbert F. Boehl Chair of Law and Medicine, and is the Director of the Institute for Bioethics, Health Policy and Law at the University of Louisville School of Medicine. He received a Bachelor of Arts from the University of Pittsburgh and a Juris Doctorate from Georgetown University. Professor Rothstein also holds academic appointments within the University of Louisville Louis D. Brandeis School of Law, School of Public Health and Information Sciences, and the School of Nursing.

Professor Rothstein began his career as an attorney at the Occupational Safety and Health Review Commission in the early 1970s, leaving in 1975 to become a law professor. In 1978, he published the first edition of "*Occupational Safety and Health Law*," which has been revised annually since then. Professor Rothstein began several collaborations with NIOSH while on the faculty at the West Virginia University Colleges of Law and Medicine between 1980 and 1985, and has been a consultant to numerous governmental bodies and professional associations throughout his career. He taught at the University of Houston from 1985 to 2000, and has been at the University of Louisville since 2000.

Professor Rothstein has authored or served as the editor of 19 books and over 200 book chapters and articles. His writing has focused on medical screening of workers, ethical issues in occupational medicine, occupational health research, genetics, health privacy, public health, and scientific developments such as toxicogenomics and epigenetics.

In addition to his current responsibilities at the University of Louisville, Professor Rothstein sits on the Advisory Board of the National Information Resource on Ethics and Human Genetics at the Kennedy Institute of Ethics, Georgetown University. He serves on the editorial boards of numerous medical and legal journals, and is a consultant on bioethics, biobanks, employment law, genetics and the law, health policy, public health law, and occupational safety and health law.

Alice Hamilton Award
for Excellence in
Occupational Safety and Health

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

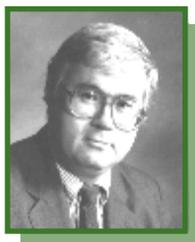
Bullard-Sherwood
Research-to-Practice
(r2p) Award
for Outstanding Application
of Occupational Safety
and Health Research

Director's Award
for Extraordinary
Intramural Science

April 28, 2010

National Institute for Occupational Safety and Health

The 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 disease, 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.

Bullard-Sherwood Research-to-Practice Awards

NIOSH presents the Bullard-Sherwood Research-to-Practice (r2p) Awards 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. He combined his experience with doughboy Army helmets during World War I 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. 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.” In related history, the steel used in the building of the Bridge oxidized during transport to San Francisco from Pennsylvania, and therefore required sandblasting before it could be painted. As a result, Mr. Bullard designed and sold another helmet to the Bridge builders to specifically protect the sandblasting workers. This helmet was similar to the Hard Boiled Hat but included a hood or “canopy” over the hat, a window to see through, and supplied air for respiratory protection in its design. Today, approximately six million hard hats, also known as skull buckets, 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 as well as more modern sandblasting helmets.

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, which became commercially available and was widely used throughout Europe. His research on respirators led to the first fit testing. While at the International Labor Organization and later at the World Health Organization, Mr. Sherwood put his own 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.

Alice Hamilton Award
James P. Keogh Award

Bullard-Sherwood Research-to-Practice (r2p) Award
Director's Award for Extraordinary Intramural Science

Introduction

John Howard, MD
Director, NIOSH
Presenting from
Morgantown, WV

James P. Keogh Award

CAPT James Collins, PhD
Winner
Morgantown, WV

Transgenerational
Environmental Epigenetics:
Scientific, Legal, and Ethical
Challenges

Mark A. Rothstein, J.D.
University of Louisville
School of Medicine
Louisville, KY

Alice Hamilton Awards

John Howard, MD

*Bullard-Sherwood
r2p Awards*

John Howard, MD
Mr. Jed Bullard

*Director's Award for
Extraordinary Intramural
Science*

John Howard, MD

Closing Remarks

John Howard, MD

Reception immediately following the program

Director's Award for Extraordinary Intramural Science

The Director's Award for Extraordinary Intramural 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:

- Alaska Pacific Office
- Division of Applied Research and Technology
- Division of Respiratory Disease Studies
- Western States Office
- Division of Surveillance, Hazard Evaluations, and Field Studies
- Division of Safety Research
- Education and Information Division
- Health Effects Laboratory Division
- National Personal Protective Technologies Laboratory
- Office of Mine Safety and Health Research

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 Award for Extraordinary Intramural 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 degree in a scientific discipline within the five years prior to nomination, and has achieved extraordinary individual research and scientific contributions in their field of work early in her or his career. 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.

Information regarding 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>

Alice Hamilton, MD

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, MD. 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, "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 U.S. 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 U.S. 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 and became the first female faculty member at Harvard University. There she served two terms on the Health Committee of the League of Nations. When she retired from Harvard at the age of sixty-six, she became a consultant to the U.S. Division of Labor Standards and served as President of the National Consumers League.

Keogh Winner CAPT James Collins, PhD



CAPT James Collins is a highly effective leader in addressing the two leading causes of occupational injury in healthcare workers: safe patient handling and movement and slip, trip, and fall prevention. His work has impacted healthcare worker safety globally and has contributed to a reduction in national injury rates associated with patient lifting in nursing homes and hospitals.

CAPT Collins currently serves as the Associate Director for Science in the NIOSH Division of Safety Research (DSR). Prior to that, he served as a Research Epidemiologist in DSR conducting preventive effectiveness research. He earned a Master of Science in Mechanical Engineering from West Virginia University and a Doctor of Philosophy in Health Policy and Management from the Johns Hopkins University.

Using his engineering and epidemiology backgrounds, CAPT Collins has applied multidisciplinary methods to conduct research from problem identification to rigorous science to evidence and advocacy for prevention. His early work defined the injury problem by identifying and targeting the highest risk tasks for prevention. Later he conducted a biomechanical laboratory study to identify safer ways to lift and move patients, and engaged extensive partners in a 9-year intervention field study to demonstrate the effectiveness of a best practices safe patient handling program. Understanding and incorporating research-to-practice methods into his research, CAPT Collins worked closely with opinion leaders and influential industry groups, such as the American Nurses Association, to raise awareness of the occupational hazard and to promote the widespread implementation of effective solutions, both nationally and internationally.

Through his efforts, NIOSH emerged as a national and international leader in safe patient handling and slip, trip, and fall prevention research for healthcare settings. His research has had a tremendous impact on shaping state and Federal legislation, improving student nursing curriculum on safe patient handling, and raising awareness of these issues as important public health problems through well designed studies.

CAPT Collins exemplifies the Keogh Award's goal of outstanding service in occupational safety and health. He has worked diligently as a researcher, advocate, and opinion leader toward the common goal of protecting nurses, nursing aides, and orderlies, and he is a tireless advocate for improving working conditions for healthcare workers.