

From the Director's Desk



Clearing the Air: NIOSH and Healthy Indoor Environments

Update: Steps to a HealthierUS Workforce

Information from the October 2004 Symposium now available on updated Web site.

New Steps Display at Key Partner Meetings

Be sure to visit the Steps exhibit while attending the Edison Electric Institute and the American Society of Safety Engineers annual conferences.

NIOSH, Georgetown University Center Sign Research, Business Education Agreement

Two year agreement will establish framework for collaborative programs and projects integrating occupational safety and health with economic research.

NIOSH Scientific Investigation Highlights Carbon Dioxide Risk

Leads to recommendations for home owners, contractors and emergency responders potentially exposed to deadly gas.

NIOSH-Funded Study Links Interns' Long Work Shifts and Risk of Motor Vehicle Crashes

Third in a series of studies focusing on the impact of extended work hours and fatigue on medical interns.

Richard Metzler to Retire As NPPTL Director

NIOSH leader in respiratory standards development retires after distinguished career.

Director of NIOSH Division of Respiratory Disease Studies Named

Congratulations to David N. Weissman, M.D., on his appointment as Director of the NIOSH Division of Respiratory Disease Studies (DRDS) effective Jan. 23.

NIOSH Researcher Receives Fellowship Award

Chemist presents NIOSH screening and analytical methods development to Asian colleagues.

MMWR: Rare Infection Spotlights Potential Pet Shop Work Risk

Two separate incidents involved handling of rats infected with deadly bacteria.

Further Evidence of GFAP (glial fibrillary acidic protein) as a Useful Marker is Offered in New Study by NIOSH and Research Partners

Increased levels of GFAP found in several brain regions among individuals diagnosed with specific forms of dementia.

New Train the Trainer Workshops Scheduled

NIOSH offering workshops on effective teaching skills for training new miners.

Look for Us

Three upcoming conferences will showcase research and activities by the National Personal Protective Technology Laboratory and the mining research laboratories in Pittsburgh and Spokane.

r2p Corner

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NORA

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Correction

From the Director's Desk

For more than two decades, NIOSH has been at the forefront of research to promote healthy indoor working environments. This is one of our great success stories in working with diverse partners to address complex occupational health concerns, and then translating our research findings into practical, effective recommendations for improving health, safety, and productivity.

In one such pioneering effort in the early 1990s, NIOSH joined with the U.S. Environmental Protection Agency in developing a guidebook to help building owners and managers prevent, identify, and correct indoor air problems; this manual, available on the web at <http://www.cdc.gov/niosh/baqtoc.html>, is still widely used. More dramatically, results from scores of Health Hazard Evaluations (HHEs) and other NIOSH research studies underpin much of today's scientific literature on remediating indoor environmental problems in offices, schools, government buildings, and other non-industrial workplaces.

NIOSH's leadership was recognized again last month when Surgeon General Richard Carmona convened a two-day *Surgeon General's Workshop on Healthy Indoor Environment* on the campus of the National Institutes of Health (NIH) in Bethesda, Maryland. NIOSH researchers helped plan the conference, participated in the Jan. 12-13 discussions on the current priority research needs for improving the health of employees in indoor environments, and joined with other participants to suggest next steps for ensuring healthier indoor environments for all Americans. The Surgeon General's keynote remarks are available at <http://www.hhs.gov/surgeongeneral/news/speeches/01122005.html#two>.

Concerns have risen significantly over the past two decades in regard to chemical offgassing, mold, environmental tobacco smoke, and other indoor pollutants. As Dr. Carmona noted in his remarks, one gauge of this trend can be found in the requests that come to NIOSH for technical assistance under our Health Hazard Evaluation program. In just the past 25 years, the percentage of HHEs related to indoor-air quality has increased from 0.5 percent of all evaluations in 1978, to 52 percent of all evaluations since 1990. This means that in the past three decades, the evaluations related to air quality concerns have increased from one of every 200 evaluations to one of every two.

In its formal workshop presentation, NIOSH identified several high priority research needs related to healthy indoor environments:

- Identifying critical indoor exposures, understanding relationships between exposures and health, and developing preventive strategies for:
 - Mucous membrane irritation, headaches, and fatigue – typical symptoms of “sick building syndrome.”
 - Communicable respiratory illnesses in indoor environments, such as influenza and the common cold.
 - Building-related allergies and asthma.
- Understanding how the design, operation, and maintenance of buildings and the activities of occupants affect the concentration of indoor pollutants.
- Identifying and evaluating strategies to reduce barriers and increase incentives for health-protective building practices.

These needs are very much reflected in our indoor environment research planning. We are particularly pleased that several of our programs for bolstering research partnerships – including the National Occupational Research Agenda (NORA), Research to Practice (r2p), and *Steps to a Healthier U.S. Workforce* – offer promising avenues for designing and carrying out new collaborative studies in this area. Further information on NIOSH’s indoor environmental quality research program is available at <http://www.cdc.gov/niosh/topics/indoorenv/>.

Update: Steps to a HealthierUS Workforce

Be sure to check out the recently updated *Steps to a HealthierUS Workforce Symposium* web page. Additions to the site include proceedings from the October 2004 Symposium, a list of speakers and panelists, and a section featuring articles about the Symposium. The updated web site is <http://www.cdc.gov/niosh/steps/2004/symposium.html>.



New Steps Display at Key Partner Meetings

As part of the “Next Steps” to the Steps Initiative, look for the Steps display on exhibit at upcoming meetings and conferences throughout this year including the Edison Electric Institute (EEI) Health and Safety Conference, April 25-27 in Houston, TX and the American Society of Safety Engineers (ASSE) Conference and Exhibition, June 12-14 in New Orleans, LA. Inquiries about the Initiative and recent symposium can be sent to NIOSHsteps@cdc.gov.



NIOSH, Georgetown University Center Sign Research, Business Education Agreement

NIOSH and the Center for Business and Public Policy (CBPP) at Georgetown University's McDonough School of Business signed a Memorandum of Understanding (MOU) on Jan. 28 to foster the integration of occupational safety and health with economic research and university-level business curricula. The agreement establishes a framework for the development of collaborative programs and projects by the partners. As a first step, the partners pledge to develop a plan of action for developing and pursuing those objectives. The MOU will be in effect for two years.

"We are pleased to join with Georgetown University to nurture an emerging generation of business leaders who will value safe, healthy, and productive workplaces as a key for staying competitive and maintaining a strong U.S. economy in the 21st Century," said NIOSH Director John Howard, M.D. "Among other research priorities, NIOSH's *Research to Practice (r2p)* and *Steps to a Healthier U.S. Workforce* initiatives will provide a strong foundation for this partnership." More information on this initiative is available at <http://www.cdc.gov/niosh/updates/upd-01-28-05.html>.

NIOSH Scientific Investigation Highlights Carbon Dioxide Risk

It was an unusual, puzzling, and – as it turned out – potentially life-threatening situation. The occupants of a newly built home in West Virginia were experiencing episodic shortness of breath, dizziness, confusion, headache, and fatigue when they were in their basement. Contractors working at the entrance to a crawlspace in the house experienced rapid heart rates and breathlessness. When firefighters arrived in response to a call from the contractors, one felt a rush of air from the crawlspace that "took his breath away." But environmental measurements of suspected culprit gases – such as carbon monoxide and methane – were below detectable limits.

Responding to a request from the state Department of Environmental Protection for technical assistance, and working in concert with the state, the homeowners, and others, NIOSH conducted a scientific investigation which verified suspicions that the hazard was caused by the displacement of oxygen by carbon dioxide. Further details about the investigation, and recommendations for reducing the risk of carbon dioxide for workers, emergency responders, and homeowners under similar circumstances, were outlined in an article in the Dec. 24, 2004, issue of the Centers for Disease Control and Prevention's (CDC) *Morbidity & Mortality Weekly Report*. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5350a5.htm>.

NIOSH-Funded Study Links Interns' Long Work Shifts and Risk of Motor Vehicle Crashes

First-year doctors in clinical training, or medical interns, who work shifts of longer than 24 hours are more than twice as likely to have a car crash leaving the hospital and five times as likely to have a "near miss" incident on the road as medical interns who work shorter shifts, according to a study co-funded by the National Institute for Occupational Safety and Health (NIOSH) that was reported in the January 13 issue of the *New England Journal of Medicine*.



The article, "Extended Work Shifts and the Risk of Motor Vehicle Crashes among Interns," is the third in a series of studies on the impact of extended work hours and fatigue upon interns conducted by the Divisions of Sleep Medicine at the Brigham and Women's Hospital and the Harvard Medical School in Boston. All three were co-funded by NIOSH and the Agency for Healthcare Research and Quality in the U.S. Department of Health and Human Services. The new article is available on line at <http://content.nejm.org/cgi/content/full/352/2/125?ijkey=zfWstEgGAt2tY&keytype=ref&siteid=nejm>.

Richard Metzler to Retire As NPPTL Director

Best of luck to Richard Metzler, who will retire March 1 from his position as Director of NIOSH's National Personal Protective Technology Laboratory (NPPTL). Rich was the first person to hold this position. Under his leadership, NPPTL quickly organized after its creation in 2001 to meet new challenges and opportunities for NIOSH. Among other accomplishments, NPPTL rapidly established a rigorous testing program for respirators intended to be used by first responders in potential terrorist attacks and other catastrophes; the first certifications for such devices were issued within months of the World Trade Center and anthrax attacks. Rich led NPPTL in partnership with the International Standards Organization to develop international respirator standards. He also led strategic planning as all NIOSH research on personal protective equipment was consolidated into NPPTL. Rich originally joined NIOSH in 1991. Prior to becoming NPPTL Director, he served with the Mine Safety and Health Administration and the U.S. Air Force, for a total of 31 years of federal service.

NPPTL

NPPTL Deputy Director Les Boord will serve as Acting Director until a new Director is named. With extensive technical knowledge of respirators and years of technical and managerial experience in the respirator manufacturing industry before joining NIOSH in 2001, Les will continue to provide seasoned leadership for NPPTL.

Director of NIOSH Division of Respiratory Disease Studies Named

Congratulations to David N. Weissman, M.D. on his appointment (effective Jan. 23) as the Director of NIOSH's Division of Respiratory Disease Studies (DRDS), succeeding Gregory Wagner, M.D.

Dr. Weissman is a graduate of Northwestern University in Chicago, Illinois, earning both a Bachelor of Science (1976) and a Doctor of Medicine (1978) degree. He did his internal medicine internship at Michael Reese Hospital and Medical Center in Chicago and both his internal medicine residency, and fellowship training in pulmonary medicine and allergy-immunology, at Tulane University in New Orleans. Dr. Weissman is a diplomate of the American Board of Internal Medicine (1982), the American Board of Allergy and Immunology (1985), and the American Board of Internal Medicine, Subspecialty in Pulmonary Diseases (1986). Dr. Weissman began his NIOSH career in 1997 as a senior medical officer in the Clinical Investigations Branch of DRDS.

NIOSH Researcher Receives Fellowship Award

Kevin Ashley, a Ph.D. research chemist with the NIOSH Division of Applied Research and Technology (DART) received a Foreign Visiting Researcher Award from the Japan Industrial Safety and Health Association (JISHA). Dr. Ashley was hosted by Norihiko Kohyama, director of the Department of Work Environment of the National Institute of Industrial Health (NIIH) in Kawasaki during his working visit in November 2004. The working visit reflected Japan's interest in fostering international collaborations with NIOSH related to industrial hygiene chemistry. For further information, contact Kevin Ashley, KAshley@cdc.gov.

MMWR: Rare Infection Spotlights Potential Pet Shop Work Risk

Two deaths from “rat-bite fever,” a rare disease caused by infection with *Streptobacillus moniliformis*, calls attention to a potential occupational risk for individuals who handle rats in duties as pet shop employees, and a potential recreational risk for people who own pet rats, according to cases reported in the Jan. 7 issue of CDC’s *Morbidity and Mortality Weekly Report (MMWR)*. One case involved a pet shop employee who was bitten in the store by a rat two days before onset of symptoms, and the other involved a previously healthy woman who owned pet rats. Fatal rat-bite fever is a rare, systemic illness with a fatality rate as high as 10% among untreated patients. Recommendations include increased surveillance and diagnosis of individuals reporting rat exposures and prevention of zoonotic infections among individuals with occupational and recreational exposure to rats. The report is available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5351a2.htm>.

Further Evidence of GFAP (glial fibrillary acidic protein) as a Useful Marker is Offered in New Study by NIOSH and Research Partners

New findings from a study by NIOSH and the Pacific Health Research Institute, a non-profit research institute located in Honolulu, provide further evidence that a protein in the human brain, glial fibrillary acidic protein (GFAP), can serve as a valuable marker to identify types of brain damage associated with dementia that might not be identified through traditional histopathology.

The findings are published in the *Journal of Alzheimer’s Disease*, Vol. 6, No. 6. An abstract is available online at <http://www.j-alz.com/issues/6/vol6-6.html>. The study is part of NIOSH’s program of ongoing health-effects research, including work on the development and use of new biomarkers to advance the prevention of work-related neurological disorders.

New Train the Trainer Workshops Scheduled

On-the-job trainers are often selected by companies for their job skills. Yet, they may have little or no experience teaching those skills to others. Researchers from the NIOSH Pittsburgh Research Laboratory are planning a series of train-the-trainer seminars to help prepare safety practitioners and others to conduct a workshop that will assist experienced miners to effectively teach safety skills and practices to new miners. Strategies for successful coaching will be taught and practiced. The “How to Conduct a Coaching Skills Workshop for On-the-Job Trainers” will be held at the following dates and locations.



- March 24, 2005 - 1:00 to 4:00 pm
Marriott San Antonio Rivercenter
San Antonio, TX
Following the South Central Joint Mine Health and Safety Conference
- April 13 and 14, 2005 – 8:00 am to Noon
NIOSH Pittsburgh Research Laboratory
Pittsburgh, PA
- June 21, 22 and 23, 2005 – 8 am to 2 pm
National Mine Health and Safety Academy
Beaver, WV

For more information on these upcoming seminars, contact Robert H. Peters at RPeters@cdc.gov.

Look for Us

Stop by and chat with NIOSH staff at the NIOSH Exhibit Booth at these upcoming conferences.

- The *2005 Society for Mining, Metallurgy and Exploration Annual Meeting and Exhibit*, February 28-March 2, 2005 in Salt Lake City, Utah. <http://www.smenet.org/meetings/AnnualMeeting2005/index.cfm>.
- The *Association of PeriOperative Registered Nurses (AORN) 52nd Congress*, April 3-7, 2005 in New Orleans, Louisiana. <http://www.aorn.org/Congress/Attendees/default.htm>.
- The *2005 International Society of Mine Safety Professionals Critical Issues/Train-the-Trainer Conference*, May 15-29, 2005 in Reno, Nevada.

r2p Corner

Customer use highlights the successful implementation of a NIOSH research product. The product is a CD-ROM-based computer model developed by NIOSH and collaborating organizations, in conjunction with the Los Alamos National Laboratory, to help users of air-purifying respirators predict the “end of service life” (ESL) for respirator cartridges designed to protect against toxic organic vapors. ESL is the juncture at which time a toxic vapor will begin to penetrate a given filter, due to normal degradation of the filter over time. OSHA, beginning in 1998, has required employers to use ESL indicator devices that will alert users to replace cartridges in time to prevent toxic exposures from occurring. Such devices are unavailable for organic-vapor cartridges, necessitating the use of a predictive computer model as the next best thing.



Although ESL models for organic-vapor cartridges have been developed, they lacked an important feature that the NIOSH model provides. This is the incorporation of relative humidity into the various workplace factors (such as temperature, pace of work, and contaminant levels) that affect the integrity and performance of the filter. Humidity is a key factor, since it can reduce service life by 80 percent. In the 12 months since the program was made available in software form and uploaded to OSHA’s Web site as a compliance assistance tool (along with a user-friendly video tutorial):

- It has been downloaded from the OSHA Web site more than 1,700 times. http://www.osha.gov/SLTC/etools/respiratory/advisor_genius_wood/breakthrough.html.
- There have been more than 3,000 visits to the OSHA Web site to view the video or to ask questions about the model.
- Five hundred copies of a compact disc (CD) containing the model and the training video have been requested from NIOSH.

More information on the product, including a list of the many partners that helped in its development, is available at <http://www.cdc.gov/niosh/updates/upd-12-22-03.html>. An updated version of the model will be released early this year, and NIOSH is developing a similar model for filter cartridges used against reactive gases.

NORA

The National Occupational Research Agenda (NORA) recently unveiled its newly redesigned newsletter, *NORA News*. *NORA News* informs readers of team activities, recent publications, and current trends in occupational safety and health. The revised newsletter responds to NORA partners' and stakeholders' requests for shorter, worker focused materials that demonstrate impact in workplace safety and health. New features now include worker tips, summaries of NORA related documents, and links to NIOSH resources. The latest edition can be accessed at <http://www2a.cdc.gov/NORA/newsletters/pdfs/nnewsin05.pdf>.



NIOSH is constantly seeking to improve its communication products and requests your feedback. How do you use NORA information in your job? Your helpful suggestion will earn a highlight in *NORA News*. Please send your suggestions to Melissa Van Orman at bse8@cdc.gov.

News From Our Partners

The Occupational Safety and Health Administration (OSHA) recently released a new document to assist hospitals in safeguarding their employees who care for patients during mass casualty incidents. *OSHA Best Practices for Hospital-Based Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances* offers critical information to help hospitals develop and implement emergency management plans based on worst-case scenarios. Among the topics covered are victim decontamination, personal protective equipment, and employee training. The document can be accessed at http://www.osha.gov/dts/osta/bestpractices/firstreceivers_hospital.html.

Communication Products

IC 9476: Analysis of Mine Fires for All U.S. Metal/Nonmetal Mining Categories, 1990-2001

This report (DHHS [NIOSH] Publication No. 2005-105) analyzes mine fires for all U.S. underground and surface metal/nonmetal mining categories during 1990-2001 by state and six successive 2-year time periods. The data, derived from Mine Safety and Health Administration (MSHA) mine fire accident publications and verbal communications with mine personnel, include injury risk rates, ignition source, and methods of detection and suppression. The analyses provide a better understanding of the causes and hazards associated with mine fires and an increased awareness aimed at preventing and reducing fire hazards. It will also form a basis for future fire research programs. The report is available at <http://www.cdc.gov/niosh/mining/pubs/2005-105>.



Mixed Exposures Research Agenda - A Report by the NORA Mixed Exposures Team

This report (DHHS [NIOSH] Publication No. 2005-106) is the product of the National Occupational Research Agenda (NORA) Mixed Exposures Team. The Team, formed from experts inside and outside the public sector, identified key areas in which new research could significantly advance the science needed to develop future interventions. This document articulates many of the issues involved with mixed exposures, recommends research strategies and defines research priorities that could lead to improved interventions for protecting workers from mixed exposures. NIOSH will use the priorities outlined in this document (and refined through future workshops) as a tool for directing our internal research program, and for guiding our extramural activities. The report is available at <http://www.cdc.gov/niosh/docs/2005-106>.



Histoplasmosis-Protecting Workers at Risk

This booklet (DHHS [NIOSH] Publication No. 2005-109) is a revised edition of the NIOSH document *Histoplasmosis: Protecting Workers at Risk*, which was originally published in September 1997. The updated information will help readers understand what histoplasmosis is, recognize activities that may expose workers to the disease-causing fungus *Histoplasma*



capsulatum, and identify methods to protect themselves and others from exposure. The booklet will serve as a guide for safety and health professionals, environmental consultants, supervisors, and others responsible for the safety and health of those working near material contaminated with *H. capsulatum*. Also included are both an English and Spanish language fact sheet intended to help educate workers and the general public about this disease. The booklet and fact sheets are available at <http://www.cdc.gov/niosh/docs/2005-109>.

Upcoming Events

International Beryllium Research Symposium-Be2005

NIOSH along with the Canadian Institut de Recherche Robert-Sauvé en Santé et en Sécurité du Travail (IRSST) and the National Jewish Medical and Research Center is cosponsoring the *International Beryllium Research Symposium* or *Be2005* to be held in Montreal, Quebec, Canada, on March 8–11, 2005. The conference will highlight the newest developments in the prevention, detection, diagnosis and treatment of beryllium sensitization and Chronic Beryllium Disease (CBC). The latest research on exposure, epidemiology, and clinical care as well as an international overview of beryllium sensitization and chronic beryllium disease will be presented. More information on this symposium can be found at <http://www.irsst.qc.ca/en/intro-be-2005.html> or by contacting Mark Hoover at MHoover1@cdc.gov.

Fourth International Conference on Work Environment and Cardiovascular Diseases

The *Fourth International Conference on Work Environment and Cardiovascular Diseases* will be held March 9-11, 2005, in Newport Beach, Calif. The conference is presented under the auspices of the International Commission of Occupational Health, Scientific Committee on Cardiology in Occupational Health. NIOSH along with the University of California at Irvine Center for Occupational and Environmental Health, the University of California, Los Angeles Center for Occupational and Environmental Health, the Center for Social Epidemiology, the Mt. Sinai School of Medicine, the American Psychological Association and the Japan Association of Job Stress Research will cosponsor the event focusing on characterizing the changes occurring in work in both industrialized and developing nations. The role of globalization and the importance of social movements, including unions, will be explored. More information on the conference is available at <http://www.coeh.uci.edu/ICOH>.

8th Annual Applied Ergonomics Conference

NIOSH and partners are cosponsoring the *8th Annual Applied Ergonomics Conference*, March 21-24, 2005 in New Orleans, Louisiana. The conference will provide examples of everyday ergonomic problems and challenges faced in the workplace. Companies will share best practice programs with excellent returns on their companies' ergonomics investment. More information on the conference is available at <http://www.appliedergo.org/conference>.

2005 International Workshop on Environmental Monitoring and Silica Dust Exposure Assessment

NIOSH along with the Tongji Medical College, Huazhong University of Science and Technology will cosponsor the *2005 International Workshop on Environmental Monitoring and Silica Dust Exposure Assessment*, April 15-18, 2005 in Wuhan and Yichang, Republic of China. The conference will provide a forum for discussion of research needs, strategies, and opportunities for effective international collaboration on environmental dust monitoring methods and comparison, physical and chemical characteristics of silica dust, epidemiological perspectives on silica dust hazards, biomarkers of silica dust-induced lung cancer and silicosis. More information on the conference can be found at http://www.who.int/occupational_health/mediacentre/en/Announcement.pdf or by contacting Bill Wallace at VWallace@cdc.gov.

Call for Papers: Work, Stress and Health 2006: Making a Difference in the Workplace

NIOSH, the American Psychological Association, the National Institute of Justice of the U.S. Department of Justice, the National Institute on Disability and Rehabilitation Research of the U.S. Department of

Education, and the U.S. Department of Labor, will convene the sixth international conference on occupational stress and health, *Work, Stress, and Health 2006: Making a Difference in the Workplace* in Miami, Florida, March 2-4, 2006, at the Hyatt Regency Miami Hotel. The conference is designed to address the constantly changing nature of work, and the implications of these changes for the health, safety, and well-being of workers. In keeping with the conference theme of “making a difference in the workplace,” there will be a particular focus on the translation of research to practice and workplace programs, policies, practices, case experiences, and other efforts to prevent stress in today’s workplace. The deadline to submit proposals is May 1, 2005. More information about the conference and the call for papers can be found at: <http://www.apa.org/pi/work/callforpapers.html>.

Occupational and Environmental Exposures of Skin to Chemicals-2005

NIOSH along with the Karolinska Institutet and the Stockholm County Council in Sweden is cosponsoring *Occupational and Environmental Exposures of Skin to Chemicals-2005* in Stockholm, Sweden, June 12-15, 2005. The conference will focus on practical ways to better prevent local and systemic injury and disease caused by exposing skin to chemicals. More information on the conference is available at <http://www.cdc.gov/niosh/topics/skin/OEESC2/> or by contacting Sid Soderholm at SSoderholm@cdc.gov. The call for poster abstracts is open until February 28, 2005 and can be accessed at <http://www.cdc.gov/niosh/topics/skin/OEESC2/call.html>.

Fifth International Symposium on Modern Principles of Air Monitoring

NIOSH along with the National Institute for Working Life, Sweden, and the National Institute of Occupational Health, Norway will cosponsor the *Fifth International Symposium on Modern Principles of Air Monitoring*, June 12-16, 2005 in Loen, Norway. The scientific program will feature the latest developments in exposure assessment and strategies as well as analytical air sampling and measurement/monitoring methodologies. New for the *Fifth International Symposium*, the topic of biomonitoring will be addressed. More information on the symposium can be found at <http://www.airmon.org> or by contacting Martin Harper at MHarper@cdc.gov.

Advanced Personal Protective Equipment - Challenges in Protecting First Responders

The NIOSH National Personal Protective Technology Laboratory (NPPTL) along with the Virginia Polytechnic Institute and State University is sponsoring *Advanced Personal Protective Equipment - Challenges in Protecting First Responders*. The conference will be held October 16-18, 2005 at the Virginia Tech and Skelton Conference Center in Blacksburg, VA.

Attendees will learn about the hazards faced by emerging threats, the application of personal protective equipment (PPE) technology to these threats, and associated challenges with selecting and interfacing different PPE items. The emphasis of the conference will be on practical issues of threat accommodation, standards, regulations, applications of best practices, manufacturing and distribution issues, PPE decision-making and purchasing, and multi-PPE integration. More information on the conference can be found at <http://www.conted.vt.edu/appe> or by contacting Tom Fisher at Tfisher@cdc.gov.

Word of the Month

GFAP (glial fibrillary acidic protein): a structural protein found in some glial cells following damage to nervous tissue from various physical and chemical insults and during some disease processes. Glial cells provide nutrition and maintenance to the nerve cells (e.g., provide myelin for axons, maintaining ionic balance, clean up after cell damage or death, etc.). Some evidence indicates that certain types of glia (esp. astrocytes) may serve information-processing roles as well.

Correction

The reference to “NIOSH Education Research Center” in the January issue of NIOSH eNews, in the featured story “NIOSH-Funded Study Reveals Multidrug Resistant Bacteria at Swine Feeding Facilities,” should have read “NIOSH Education and Research Center.”

[NIOSH eNews on the Web: www.cdc.gov/niosh/enews/](http://www.cdc.gov/niosh/enews/)

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