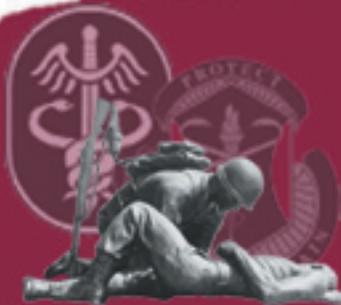


# THE POINT

A newsletter for and about the people of the  
U.S. Army Medical Research and Materiel Command



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## Command names top NCO, Soldier of Year

The U.S. Army, Medical Research and Materiel Command named its top Soldier and noncommissioned officer during ceremonies in San Antonio March 28.

Spc. Randall Link of the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, Md., and Staff Sgt. James S. Hunt of the Walter Reed Army Institute of Research at Silver Spring, Md., earned their respective titles by winning the 2007 USAMRMC Soldier and Noncommissioned Officer of the Year Competition.

“I think it’s only fitting that after spending four hours in the airport with Specialist Link that we would end up as NCO and Soldier of the Year. I really enjoyed getting to know him,” Hunt said. “When I talk to Soldiers about these competitions, I always tell them about the awesome people they’ll meet and the friends they’ll make.”

Amid thundering “hooahs” from their fellow competitors and command staff, Link and Hunt received their awards. Both received trophies and Army Commendation Medals in addition to the certificates of achievement and coins they were presented by Col. Jonathan Jaffin, acting commander of USAMRMC, and Command Sgt. Maj. James Shaheen, acting command sergeant major.

“When you reflect what’s happened in the Army over the past few years, NCOs and Soldiers have made it happen,” Jaffin said. “We need to remember and honor the great work of our NCOs and Soldiers every day. They’re in touch with the Soldiers and what’s going on in the Army.”

An Army physical fitness test was the first challenge for the competitors. The crew was off to Camp Bullis in full gear for the second



*Spc. Randall Link, left, and Staff Sgt. James S. Hunt were named U.S. Army, Medical Research and Materiel Command Soldier and Noncommissioned Officer of the Year. (Photo by Dee Crawford)*

portion of the competition, which included marksmanship, land navigation, first aid and warrior tasks. Each Soldier had to evaluate the wounded, escort or radio command regarding enemies seen within the area and decontaminate themselves and their equipment in a simulated chemical environment. After a short rest and meal, they were back on course to complete the night land navigation course. At the end of the testing, they were each questioned by senior medical NCOs.

In his brief remarks, Link thanked the cadre and who ran the competition and his RIID co-workers who helped him prepare. Hunt thanked his wife — “the other Sergeant Hunt” — for getting him prepared and taking care of the kids while he was away.

Both Soldiers represented the command at the U.S. Army Medical Command Soldier

## Lab creates noise-immune stethoscope

In combat and civilian medical environments, an unmet need exists for a stethoscope that can hear heart and lung



Working prototype of the noise-immune stethoscope (Photo by Scott Childress)

sounds while inside helicopters, fixed-wing aircraft or ambulances where noise levels preclude auscultation with standard stethoscopes. Without this basic diagnostic capability, patients can suffer from undetected collapsed lung or potentially fatal airway compromise.

A conventional acoustic stethoscope will not function at background noise levels beyond 80-85 decibels. Electronic stethoscopes, in combination with mechanical impedance-matched transducer designs, can extend this range to about 90 decibels; however, noise levels in some aircraft, particularly heavy-duty helicopters like the UH-60 Black Hawk, can be as high as 120 decibels.

A hybrid stethoscope, developed under a Small Business Innovation Research grant by Active Signal Technologies and scientists from the U.S. Army Aeromedical Research Laboratory under the direction of Dr. Adrianus J. M. Houtsma, allows

auscultation using ultrasound Doppler technology as well as electro-mechanical means.

The use of an ultrasound transmitter and receiver provides an essentially noise-free auscultation channel since transportation vehicles do not produce acoustic energy at ultrasound carrier frequencies of 2-3 megahertz. Clean, noise-free heart and breath sounds have been obtained in broadband noise fields as loud as 120 decibels. This device is not merely “noise resistant,” but truly “noise immune.”

Because the sounds of acoustic/electronic and ultrasound stethoscopes are fundamentally different, the prototype device was constructed as a dual-mode device that can operate as an ultrasound stethoscope and also as a conventional electronic/mechanical stethoscope when background noise levels are sufficiently low.

Publications and presentations describing the noise-immune stethoscope have generated worldwide interest in the stethoscope, which is enhanced by a surround barrier for electronic stethoscopes Houtsma invented. A patent application for his device has been filed on behalf of the U.S. Government. —By *Diana Hemphill, USAARL*

### “Soldiers,” continued from page 2



Staff Sgt.  
James S. Hunt

and NCO of the Year Competition held April 1-6 in San Antonio.

Other competitors for Soldier of the Year were Spc. Milfred Williams of the U.S. Army Institute of Surgical Research at Fort Sam Houston, Texas; Spc. Philip Naas of WRAIR; and Spc. Ilker Irmak of the U.S. Army Medical Materiel Center-Europe at Pirmasens, Germany.

NCOs competing included Sgt. Julie Bass of the U.S. Army Aeromedical Research Laboratory at Fort Rucker, Ala.; Staff Sgt. Jennifer Devorak of the U.S. Army Medical Research Institute of Infectious Diseases at Aberdeen Proving Ground, Md.; Sgt. John Camelo of USAISR; Sgt. Marcus Tillis of the U.S. Army Research Institute of Environmental Medicine at Natick, Mass.; and Sgt. Jason Cross of USAMRIID. —By *Dee Crawford, USAMITC*



Spc. Randall Link

## Conference displays hospital of the future

Each spring the U.S. Army Medical Research and Materiel Command's Telemedicine and Advanced Technology Research Center displays its wares at the annual meeting of the American Telemedicine Association. This year, in Nashville, the theme of the spacious, blue, dramatically lit TATRC exhibit was "Hospital of the Future."

TATRC has a mission to keep an eye on emerging technologies, wherever they may be, and identify any that might improve the delivery of health care to the troops, far forward, in a field hospital or back at home. TATRC program managers go to technology developers in industry and academia and establish what they hope will be mutually beneficial relationships with them, instead of trying to duplicate in-house what's being done on the outside.

This year's exhibit offered technologies that already exist, many of them already available commercially, but not yet commonplace in military and civilian hospitals. The exhibit therefore avoided the fanciful approach to viewing the future, and presented more plausible, near-term improvements in health care.

A patient bound for the Hospital of the Future on an ambulance or helicopter will begin getting care en-route, as the Disaster Relief and Emergency Medical System enables transmission of patient vital signs and video images from the vehicle to the waiting emergency room physician, and feedback from the doc to the emergency medical technicians in the vehicle on what they can do for the patient during the trip.

Once they've arrived at the emergency room, a digital x-ray can be produced in three to five seconds and transmitted wirelessly to the hospital's Picture Archive and Communication System, which will make it available to any doctor who needs it, either in this hospital or at any other that might become involved in a consultation. The digital radiographic system is self-contained and has wheels, so if further x-rays are needed, the same system can be wheeled along and used again in another hospital location.

If the patient needs an emergency craniotomy to relieve pressure from a head wound or a



*Maj. Kevin Chung, an intensivist, demonstrates how he uses a robot to remotely direct residents helping a patient in crisis in an ICU.*

cryothyroidotomy to remedy a blocked airway, the PC-based training simulators for practicing those procedures would help. The difficult airway entubation set, which adds a fiber optic camera to a laryngoscopy blade, might be useful after the cryco procedure is done. The entubation set comes with a lunchbox-sized "telepack" that provides light source, power and a viewing screen for the camera's image.

On to the operating room, where more virtual reality training simulators will have raised the skill levels of surgeons in laparoscopic and telerobotic surgery. If a biopsy is required, the Needle Guide Robot for Minimally Invasive Interventional Procedures will import CT images into a workstation, allow the physician to locate the target on the liver, lung, kidney, prostate or spine and use the software to plot the pathway, select an entry point and let the robotic device position the needle with precision.

During surgery, operating room staff will be able to view all information relevant to their case on a large video monitor or dashboard on the wall. A touchscreen will allow the OR nurse or surgeon to navigate through the dashboard for patient history details, a review of the preparations for the surgery, a list of tasks performed and OR personnel in attendance,

**“Hospital,” continued from page 3**

identified by name, or even nickname, to promote camaraderie among the surgical team. The dashboard can be mounted adjacent to a second wide-screen monitor that could allow for two-way consultation during the case or video access to other departments of the hospital for supporting information.

Radio frequency identification tags on OR equipment, staff and patient communicate directly with the dashboard, announcing to the operating surgeon that everything and everyone needed for the case to proceed is present.

After surgery, a patient might be monitored in the intensive care unit by an intensivist who is at home or traveling but can check in on the patient and his or her data streams through a remote presence robot. The robot moves around the ICU on wheels, controlled by a joystick at the intensivist’s laptop. The robot’s face is a video screen projecting the face of the doctor, who can talk with ICU staff and the patient and his or her family.

Maj. Kevin Chung, an intensivist from the U.S. Army Institute of Surgical Research in San Antonio, rolled the robot around the exhibit floor and told stories of using it to remotely direct residents helping a patient in crisis in the ICU. He said surveys showed that patients, family, nurses and doctors were all favorable in their attitudes toward the remote presence robot once they became aware of what it could do for them.

The hospital of the future will still have patient rooms, but even the ordinary room is an area for improvement. Architecture graduate students at Clemson University are studying the hospital room concept, looking to improve the experiences of patient, family and staff in those rooms. Patient safety, staff efficiency and effectiveness, therapeutic benefit and ability to accommodate change are among the areas for improvement. Aesthetic matters like colors and materials, real or simulated

views through the window and entertainment devices are also part of the study.

Finally, the patient leaving the future hospital will still take with him or her prescriptions, doctor’s orders and a record of all care received during the stay. Medical information is a particularly important commodity in military medicine, where Soldier health records are maintained over a career that could be three years or thirty years. The technology of capturing and reliably storing this information is still developing.

A software engineer with one of TATRC’s partner companies explained the complex process of getting a computer program to perform the “syntactic parse of English sentences,” like we did in seventh grade English classes on diagramming sentences. He used the word “ontology” a few times, moving from 7<sup>th</sup> grade English class to Jesuit philosophy class. Natural language programmers, he said, had to probe the meanings of words and their relationships to other words (as philosophers probe the meaning of things and their relationships to other things) to make a program understand and accurately capture spoken language.

The “holy grail” in this area for Capt. Daniel Torzala, a neurologist from William Beaumont Army Medical Center at Fort Bliss, Texas, is voice capture software running on a small wireless computer that he can carry while he makes his rounds. The software hears and accurately transcribes his words and creates word files that automatically integrate information into medical records. He demonstrated the process, speaking toward a prototype tablet computer. Technologically adept, Torzala had programmed macros that resulted in paragraphs appearing on the screen after he spoke one or two key words. Looking a little further into the future, he surmised that he wouldn’t even have to carry the computer. He thought it would probably be small enough to fit into the Bluetooth earpiece he wore.

—Chuck Dasey, USAMRMC

**Architecture graduate students at Clemson University are studying the hospital room concept, looking to improve the experiences of patient, family and staff in those rooms.**

## Non-contact respiration monitor receives patent

Imagine this scenario: Our armed forces' mission has elevated to a situation that involves chemical and biological warfare, and our troops have donned their Mission Oriented Protective Posture gear to prevent harmful agents from reaching their skin. Safe breathing is allowed only through the filtered gas mask.

Add unconscious casualties to the scenario, and medics face an additional problem: how can a medic check pulse and respiration when MOPP gear inhibits contact with the patient's body by either hand or instrument?

"Determining whether an unconscious patient's heart is beating and whether the patient is breathing are the two most important vital signs in an emergency situation," said Dr. Donald W. Caldwell, project manager for Army Medical Devices at the U.S. Army Medical Materiel Development Activity. "In the event of mass casualties, there is no efficient way of triaging the condition of unconscious patients, as protective masks or garments cannot be removed until patients are moved out of the contaminated environment and harm's way."

This concern prompted Caldwell to invent the Non-Contact Respiration Monitor, a wear-and-forget device that senses breathing and transmits that information to a medic at a remote location. Caldwell received a patent for the device Jan. 30.

The device was developed and constructed with the help of Mark Arnold of the Applied Medical Systems Division and the Industrial Services Branch, a small team of engineering technicians with an array of design and fabrication skills who

work together to design and prototype medical equipment for the U.S. Army Medical Research and Materiel Command.

During its development, the Non-Contact Respiration Monitor went from a tackle-box-sized, prototype

to a smaller, more compact, one-piece, second generation concept demonstrator that fit into the end of the filter canister of a gas mask. It has miniature electronic circuitry and is battery operated. Airflow, such as the exchange that takes place in the mask, is detected by causing a flap-valve to engage, disengage and activate an illuminated display. For example, if the patient is breathing, LED lights flash green, if not, the lights flash red.

The next step is to try to get the sensor integrated directly into the gas mask, and used in conjunction with a medical casualty situational awareness system.

—Pat McConnell, USAMMDA



*Dr. Donald W. Caldwell invented and received a patent for the Non-Contact Respiration Monitor.*

## Center helps with eyewear woes in theater

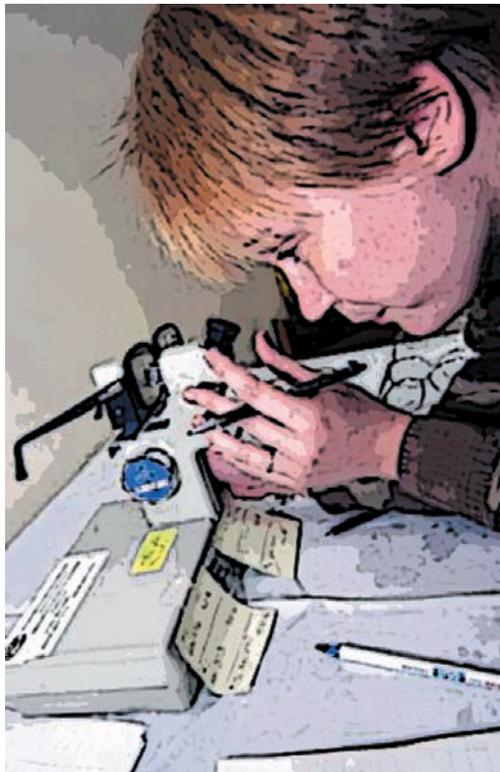
Traveling great distances to get an eye exam in Iraq has exposed warfighters to danger, and getting replacement eyewear is impossible without a prescription.

The U.S. Army Medical Information Technology Center maintains a central database of all military prescriptions under the Spectacle Request Transmission System, an automated system used by all Department of Defense medical facilities for ordering and tracking eyewear. The system is tailored specifically for eye clinics and fabrication facilities.

Aware of USAMITC's database, Col. Neil Glenesk, senior Army optometrist, asked USAMITC to provide a Web interface for ordering replacement eyewear for all U.S. military personnel in theater.

"Our staff understands that their business is to support the warfighter, and this is just another example of how they do this," said Lt. Col. Joseph Bentley, commander of USAMITC.

USAMITC expanded the existing capabilities of the spectacle request process into a secure, Web-automated system for use by all authorized



DoD personnel. A Spectacle Request Transmission System-specific Web site was stood up in early June.

Initially, all personnel deployed to Iraq and Afghanistan and those from support locations will be able to order replacement eyewear from the safety of the nearest available online computer. Traveling in harm's way to visit the nearest eye clinic will no longer be necessary.

With the Web-ordering process, personnel will complete an online form that is sent electronically to the central server at USAMITC. If the prescription is found, the order is sent to a fabrication facility for processing. The facility

will complete the order for glasses or inserts and send it directly to the servicemember.

If the prescription is not found, further instructions would be provided.

Future plans include linking the Spectacle Request Transmission System site from Army Knowledge Online and Defense Knowledge Online.

—Pam Simpson, USAMITC

## Air Force Surgeon General lauds center

U.S. Air Force Brig. Gen. Theresa Casey, assistant Surgeon General for Modernization, thanked the U.S. Army Medical Information Technology Center for supporting the Air Force Surgeon General's Office. USAMITC information technology engineers developed an Air Force site-specific software package to efficiently install an AHLTA upgrade to 83 Air Force medical treatment facilities. AHLTA is the DoD's

electronic medical record.

Casey recognized Arlo McCalla, Paul Ferrel, Doug Barton and Janine Oakley for their efforts and expertise. After the complex software upgrade was installed, the team "went beyond, yet again, providing updated packages as needed and lending their invaluable expertise to help us overcome a variety of technical challenges," Casey said. "These individuals displayed seamless, joint-ser-

vice teamwork."

The assistance USAMITC provided saved the Air Force about 10,000 person-hours, which equals about \$150,000. The same savings will be realized with system maintenance. USAMITC will continue to assist the Air Force with AHLTA upgrades, including ones that will improve communications with the Department of Veterans Affairs.

—Pam Simpson, USAMITC



Army, Navy, Air Force, Marine, and NASA attendees at tri-service patient movement item meeting in front of U.S. Army Aeromedical Research Laboratory's specially-equipped Black Hawk research helicopter. (Photo by Scott Childress)

## Group meets on airworthiness requirements

The U.S. Army Aeromedical Research Laboratory hosted a three-day working group meeting in May to address changes to the existing Joint Airworthiness Certification requirements document to include land and sea environments. Since its implementation, the Joint Airworthiness Certification requirements have led to lower testing costs, stronger collaborative relations within the test community and faster certification processes across the services.

Under the direction of Dr. Khalid Barazanji, the USAARL Airworthiness Certification and Evaluation Branch tests the efficacy of medical

systems in the U.S. Army medical transport environment, ensuring the safe interaction among medical equipment, patients, crew and vehicles.

The Airworthiness Certification and Evaluation Branch also plays a key role in the Defense Medical Standardization Board activities for tri-service standardization. The first tri-service meeting on testing patient movement items was held at the USAARL in 2001, resulting in development and implementation of the Joint Airworthiness Certification requirements.

—By Diana Hemphill, USAARL

## Command collaborates on heat stress

While making improvements to surgical staff practices in a heat-stressed work environment at the U.S. Army Burn Center, the U.S. Army Institute of Surgical Research called upon heat experts at the U.S. Army Research Institute of Environmental Medicine.

Treating patients in the burn center often involves working for long periods of time with temperatures averaging 90 degrees Fahrenheit and high relative humidity. These conditions were causing the staff to experience dehydration and heat stress.

Bruce Cadarette, a research physiologist in the Thermal and Mountain Medicine Division at USARIEM, made a site visit to the USAISR to assess the surgical staff's cooling require-

ments and to determine the limitations of the surgical suite.

Cadarette and Brad Laprise, an engineer at the Natick Soldier Research, Development and Engineering Center, researched military and commercial cooling systems and identified three that could be used.

A second visit involved training on the three systems so the surgical staff could choose a system that not only provides cooling but also allows the user to work on a patient.

This work was done during an 18-month period, and the cooling units are now successfully being used by the surgical staff at the Army Burn Center.

## Trauma system team continues to excel

Several staff members with the Joint Theater Trauma System, housed at the U.S. Army Institute of Surgical Research, recently passed their national certification exams.

Five members successfully passed the national certification exam for the Abbreviated Injury Scoring System, a system used by the Joint Theater Trauma Registry. There are only 31 certified AIS individuals in the United States. They are:

- ◆ Lisa Cardenas (March)
- ◆ Virginia Johnson (March)
- ◆ Mimi Lawnick (September 2006)
- ◆ Terry Sosa-Longoria (March)
- ◆ Mary Vela (September 2006)

In addition to those who recently passed the AIS certification, two individuals successfully passed the ICD-9 CM, CCS-P exam, which assures a high level of expertise in the ICD-9-CM coding system. They are Elouise Lockridge, who is also certified as a registered health information technician, and Samantha Reid.

Kudos are also due to Mary Ann Spott, JTTS director, for helping to write the AIS certification exam.

The Joint Theater Trauma System is a systematic, integrated approach to better organize and coordinate battlefield care to minimize morbidity and mortality and maximize the ability to provide essential care required by given casualty injuries quickly. It provides a focusing initiative to improve battlefield trauma care through enabling the right care, to the right patient, at the right place, at the right time.

The JTTS is designed to improve battlefield trauma care capabilities by planning and integrating key components to ensure and improve leader-

ship, pre-hospital care, information systems, clinical practice guidelines, research and quality assurance and process improvement. It is based on civilian trauma system principles outlined in the American College of Surgeons Committee on Trauma (Resources for the Optimal Care of the Trauma Patient, 2006).

The Joint Theater Trauma Registry is a database on information collected on battlefield trauma, the care received by the casualty throughout the continuum, and outcomes of the injury, which allows the identification and integration of processes and procedures for continual process improvement.

All Defense services participate in the JTTS and JTTR. The theater trauma medical director and theater trauma nurse coordinators rotate from each service and integrate into the theater operation to facilitate improvements in trauma capabilities. They are responsible for initiating the collection of information for the registry.

There are an additional staff of 22 registered nurses and certified coders for the JTTR Data Acquisition Branch housed at Fort Sam Houston, Texas, who collect theater trauma data from deployments of Level III medical treatment facilities to provide quality assurance and performance improvement data for military health care contingency operations. Because of the unique nature of the wartime military health care system, special skills are required to identify and integrate the critical nature of the data.

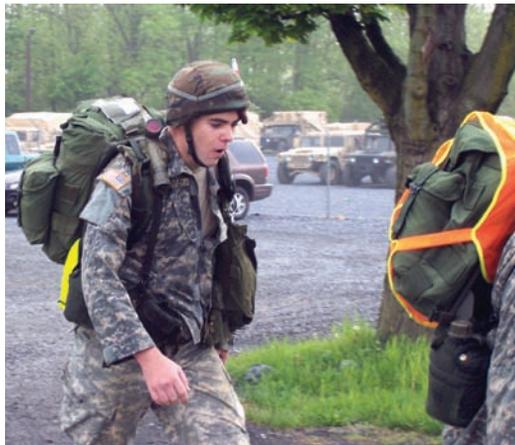


**The Joint Theater Trauma System is a systematic, integrated approach to better organize and coordinate battlefield care to minimize morbidity and mortality and maximize the ability to provide essential care required by given casualty injuries quickly.**

## People in the News

### Expert badge earned

Showing determination and excellence as a combat medic, a Fort Detrick Soldier earned the coveted Expert Field Medical Badge at Fort Indiantown Gap, Pa., May 11.



*Spc. Steve Holliday*

More than 60 medical Soldiers started the course, but Spc. Steve Holliday was one of only 12 who finished the two-week physical and mental endurance test.

According to the U.S. Army Medical Department's Web site, the EFMB Armywide average completion rate is only eight percent.

"The badge is the epitome of what a combat medic should be," said Holliday's former supervisor, 1st Sgt. Juan Ortiz, U.S. Army Medical Research Institute of Infectious Diseases. "It means you're an expert at your craft—the top, cream of the crop."

The course started out with a week of preparation for the Soldiers to study and practice for their second week of grueling medical proficiency tests, land navigation, combat medical testing lanes and road march.

"The biggest challenge for me was the written test," Holliday said. "You really had to know what you were doing."

After passing the written test, which knocked about half of the participants out of the running, Holliday said the combat medic test lanes presented three days of new challenges.

"I came close to not passing a couple of times," he said.

The last day ended in the 12-mile road march that the Soldiers had three hours to complete. According to Holliday, many crossed the finish line with just minutes to go.

As a senior noncommissioned officer in the medical field, Sgt. 1st Class Diahann White, USAMRIID, has seen many Soldiers attempt to get the badge but fall short on one of the many obstacles.

"There are people who have gone out four, five, six times," said White. "He (Holliday) earned it on his first try."

His achievement may have impressed her, but White added she's not surprised he did so well on his first run. "He's a solid performer, although I would have been proud of him even if he didn't make it just because he took the risk and tried. He accepted the challenge and conquered it."

Holliday was recently selected to be the aide for the U.S. Army Medical Research and Materiel Command's next command sergeant major.

—*Sarah Maxwell, Fort Detrick  
Public Affairs*

### Nutrition leader

Dr. James McClung of the U.S. Army Research Institute of Environmental Medicine's Military Nutrition Division, was selected and attended the Dannon Institute Nutrition Leadership Institute. The institute provides a week of personal and professional development for leading nutritional scientists at an early stage of their career. The goal of the training program is to provide these scientists with the leadership skills and perspective required to achieve their

professional potential.

The class of 2007 included researchers and medical doctors from academia, industry and government. Participants included young faculty from Johns Hopkins University and Brown University, as well as employees of the Centers for Disease Control and Prevention and the U.S. Army. Faculty trainers and guest speakers included leading nutrition scientists and topics included research ethics, mentoring and personal effectiveness.

## People in the News

### Computers donated

The U.S. Army Aeromedical Center, in conjunction with the U.S. Army Aeromedical Research Laboratory, donated more than 40 computer systems to the Coffee County Board of Education May 30. These computers will be put into the classrooms of the Alabama county's school system. This is the second computer equipment donation to Coffee County schools this year.

"In the spirit of the Education Partnership Act, we are recognizing the importance of education to the future and economic well being of our community and nation," said Col. James S. McGhee, USAARL commander

Previous donations of surplus scientific equipment from the USAARL include photographic equipment to Enterprise-Ozark Community College, science laboratory equipment to Troy University and Opp High School and computer equipment to several local school systems.

To encourage the study of science, mathematics and engineering at all levels of education, federal laboratory commanders are authorized by the Education Partnership Act, Title 10 United States Code 2194, to transfer surplus defense laboratory equipment to educational nonprofit organizations, McGhee said.



*Dr. John Crowley, left, and Lt. Col. Ronald King, shaking hands, of USAARL accompanied Staff Sgt. Schuyler McKenzie and Col. Michael Kaminski of Fort Rucker in donating computers to Galen McWaters and Carol Mooney of the Coffee County Board of Education. (Photo by Scott Childress)*

"As a defense laboratory, USAARL has a responsibility to encourage the study of science, mathematics and engineering at all levels of education by entering into education partnership agreements with educational institutions in the United States," he said. "The laboratory makes these contributions to local students so that the nation will have the benefit of a better prepared scientific, engineering and technical base.

*—Diana Hemphill, USAARL*



*Maj. Gen. Gale S. Pollock and Col. Beau Freund*

### Surgeon General visit

Maj. Gen. Gale S. Pollock, commander, U.S. Army Medical Command and acting Surgeon General visited the U.S. Army Research Institute of Environmental Medicine June 1.

Pollock received an overview of the Soldier System Center from Dr. John Obusek, former USARIEM commander. Col. Beau Freund, USARIEM commander, provided an overview of the institute and took the general on a tour of USARIEM facilities, discussing current research studies.

The visit concluded with a roundtable discussion of various MEDCOM topics and opportunities to improve collaborations across organizations within the Defense Department.

## People in the News



Suzanne Lesch receives the CARES Award from Brig. Gen. James K. Gilman.

### **Burn center volunteer receives CARES award**

Suzanne Lesch received the CARES Award from Brig. Gen. James K. Gilman, commander of Brooke Army Medical Center and Great Plains Regional Medical Command April 3. The award, which stands for Caring, Attentive, Responsive, Enthusiastic and Smiling, is presented to one volunteer every quarter by the hospital commander.

Lesch was recognized not only for her years of service as a Red Cross volunteer in the Burn Center waiting room but also for her work with two other programs. She personally coordinated and distributed Quilts of Valor to Wounded Warriors, ensuring every warrior receives a quilt signed by the artist and the person who assembled the quilt by hand. Additionally, for the past two years, Lesch managed a Christmas Gift Bag Program providing 135 Wounded Warriors a decorated Christmas gift bag of food, gift cards and presents. Her efforts involved contacting numerous organizations for gift items, collecting boxes of food and gifts and recruiting volunteers to work Sundays to assemble the gift bags. She and the volunteer staff then worked tirelessly to give Christmas gift bags and food to the Wounded Warriors, family members and staff.

### **Researcher exchange**

Dr. Gabriela E. Zollner of the Walter Reed Army Institute of Research was selected for the 2007 class of the United States-United Kingdom Exchange of Early Career Scientists Laboratory Visit Program. Two Army nominees, along with two Navy and two Air Force counterparts will participate in this year's program, which took place in June in the United States and will be held in September in the United Kingdom.

"It is expected that introduction of these young researchers to the wide array of scientific and technical activities conducted across defense installations in the U.S. and UK will not only increase their breadth of knowledge and understanding but will also foster the potential for future collaboration among these scientists and the two nations," wrote Dr. William Rees Jr., Deputy Under Secretary of Defense (Laboratories and Basic Sciences) in the letter announcing the selections.

### **First place for bowlers**

Team 1 bowlers from the U.S. Army Medical Research Institute of Chemical Defense took first place in the Aberdeen Proving Ground, Md., unit competition. Members of Team 1 include Staff Sgt. James Barclay, Sgt. Emily Willis and Spc. Michael Thomas. USAMRICD Team 2 bowlers Master Sgt. Timothy Kempisty, Staff Sgt. Jennifer Devorak, and Andrew Bonvillain finished as one of the top five teams.

### **Busy Soldiers**

U.S. Army Medical Research Institute of Chemical Defense Soldiers have had a busy spring. In March, Soldiers refreshed their land navigation skills. They participated in two off-post car washes April 13 and 26 and a bake sale fundraiser April 24 to benefit the morale, welfare and recreation fund. Spc. Joseph Chadwick also published a book and donated the proceeds to the fund.

## People in the News

### Warrior leaders

Six Soldiers from the U.S. Army Medical Research Institute of Infectious Diseases graduated from the Warrior Leadership Course held March 30 through April 14 at Fort Indiantown Gap, Penn. USAMRIID Soldiers from Class 008 were, from left to right, Spc. Chet A. Bateman; Spc. Dennis S. Harris; Spc. Jacqueline A. Cupino; Capt. April Harris, USAMRIID Medical Company commander; Spc. Samuel I. Navarrete; Sgt. 1st Class Juan Ortiz, first sergeant; Spc. Adam L. Hedge; and Spc. David E. Flowers. Flowers' classmates nominated him for Leadership Award, which required him to compete before an oral board. In addition to winning the Leadership Award, Flowers was also on the Commandant's List with Harris. The Comman-



*Six Soldiers from the U.S. Army Medical Research Institute of Infectious Diseases graduated from the Warrior Leadership Course.*

dant's List is made up of the top 20 percent of the entire class of more than 170 Soldiers.



*Dr. John Castellani*



*Dr. Robert Kenefick*

### U Conn awards

Two researchers in the U.S. Army Research Institute of Environmental Medicine's Thermal and Mountain Medicine Division received awards from the Neag School of Education at the University of Connecticut. Dr. John Castellani, a research physiologist, received the Distinguished Alumni Research Award April 27. Castellani conducts research in areas of heat and cold physiology as it relates to Soldier performance and susceptibility to injury in these environments. Additionally, he is the lead author on the American College of Sports Medicine position stand entitled "Prevention of Cold Injuries During Exercise."

Dr. Robert Kenefick, also a research physiologist, received the Outstanding Kinesiology Professional Award May 12 for his expertise in the field of exercise science, his contributions in the areas of sport performance and his numerous publications and presentations.

Castellani and Kenefick are considered leading environmental physiology researchers in the United States.

## People in the News



Children wearing helmets and body armor pose for a 3D scanning device used to assess the volume of Soldiers and their equipment.

### Daughters, sons go to work

The Women in Science and Engineering team at the Natick Soldier System Center sponsored a program of activities for children ages 9 through 19 in support of Bring Your Daughters and Sons to Work Day April 20.

“Mission Impossible” was the theme for the 10th anniversary of the program. Activities included tours and hands-on demonstrations in areas such as the climatic chambers, parachute prototype shop, taste test, shelters, camouflage lab, Navy kitchens, anthropology lab, altitude chambers and the center for military biomechanics research.

During the opening ceremony, Col. Beau Freund, commander of the U.S. Army Research Institute of

Environmental Medicine and military deputy to the installation’s commanding general, welcomed about 130 children and their parents. Every American Soldier has the mission of protecting America’s freedom at home and abroad, securing the homeland and defending democracy worldwide, he said. The colonel said that the SSC mission is focused on the American Soldiers’ mission by ensuring they are provided the best clothing, food, equipment and shelter.

The finishing touch on the day was held in an auditorium in the afternoon. As children entered the room, the “Mission Impossible” theme song played followed by a slide show with accompanying music of the pictures children took throughout their morning.

### Lifesaver

While Sgt. 1st Class Jeffrey Emry from the U.S. Army Medical Information Technology Center was serving as a chaperone for his daughter’s fifth-grade class trip at the San Antonio River Walk, he heard a faint plop. When he turned, he saw a toddler struggling to stay above the water. Emry quickly reached in and pulled the child to safety to the great relief of his mother and about 50 onlookers who weren’t close enough to help.

—Pam Simpson, USAMITC



Capt. Vince Myers

### Farewell

Friends and coworkers bade farewell June 7 to Capt. Vince Myers, who served as the aide de camp for Maj. Gen. Eric Schoomaker, former commanding general of the U.S. Army Medical Research and Materiel Command. Called a “sterling officer” and someone who “worked as hard as the general,” Myers’s next assignment is as head nurse with the 121st Combat Support Hospital in Seoul, Korea. Schoomaker said the captain, who served as aide from August 2003 to June 2007, “never lost his sense of humor or his sense of humility. He is the best aide—unquestionably—in the U.S. Army.”

## People in the News



*At the 2007 Baltimore Federal Executive Board Luncheon May 4 from U.S. Army Medical Research Institute of Chemical Defense are, back row, Col. Brian Lukey, Scott Wise, Linda Kaiss, Thomas Hott, Rick Smith, Denise Hott, Dr. Michele Hackley Johnson, Ethel Hackley, and Brennie E. Hackley III. Front row, Ben Capacio, Anthony Osborne, Master Sgt. Kempisty (Photo by Brandon Muller)*

### Excellence awarded in Baltimore

Several employees of the U.S. Army Medical Research Institute of Chemical Defense were recognized at the 2007 Baltimore Federal Executive Board Luncheon on May 4. Bronze awardees were:

- ◆ Dr. Benedict Capacio in the Outstanding Supervisor, Grade 13 and above category;
- ◆ Thomas Hott in the Outstanding Supervisor, Trades and Crafts category;
- ◆ John Rick Smith for the Outstanding Professional (Non-supervisory), Technical, Scientific and Program Support category;
- ◆ Linda Kaiss in the Outstanding Administrative Assistance/Management Assistant category;
- ◆ Alan Otto for the Outstanding Trades and Crafts (non-supervisory) category
- ◆ Scott Wise for the Volunteer Service, Individual Award.

Silver award winners were:

- ◆ Denise Hott in the Outstanding Supervi-

sor, Grade 12 and below category

- ◆ Staff Sgt. Mark A. Reynolds for the Outstanding Para-professional (non-supervisory), Administrative/Management Analyst category

- ◆ Anthony Osborne for the Rookie Employee of the Year, Administrative/Management Analyst category

- ◆ Dr. Brennie E. Hackley Jr. for the Distinguished Public Service Career category. His award was accepted by his widow, Ethel Hackley, who was escorted by Col. Brian J. Lukey, USAMRICD's commander. Lukey also presented her with the flag flown over the U.S. Capitol during her husband's internment at Arlington Cemetery. In addition, a letter from Dutch Ruppertsberger, former county executive for Harford County, was read congratulating Hackley for his 57 years of devotion to duty, for which Hackley was given a standing ovation. Hackley's daughter Michele and son Brennie E. Hackley III also attended the awards ceremony.

### Medals

Lt. Col. Brian Moore, Maj. Claudia Henemyre-Harris and Capt. Angela Purcell all received Meritorious Service Medals May 9 at the U.S. Army Medical Research Institute of Chemical Defense.

### Promotions

Pfc. David Holohan of the U.S. Army Medical Research Institute of Chemical Defense, was promoted to specialist June 1.

## People in the News

### Gold winner

Recognized for accomplishments in his field, Fort Detrick scientist Tommy Shedd accepted a prestigious Gold Award from the Federal Executive Board at the “Excellence in Federal Career Awards” held in Baltimore May 4. (See related story page 14.)

Shedd, along with other scientists in the U.S. Army Center for Environmental Health and Research, gained much notoriety in recent years for their patented, automated biomonitoring method that uses living fish to determine water quality, ensuring it’s clean enough for people to drink.

According to Shedd, the idea of biomonitoring isn’t new, but he and his team scaled down and streamlined the system using newly available computer technology.

When the quality from the water source such as a river or lake is good, the fish are happy and relaxed, he said. If any toxins are in the water, the fish stress out and begin to have respiratory changes. The sensitive monitors on their tanks pick up these minute changes and provide an immediate alert to officials.

It was the first early-warning toxicity biomonitor in the country, said Shedd. Originally fielded at Fort Detrick and Aberdeen, the technology hit the corporate world and is now being used to monitor water bodies in New York, Philadelphia and Washington.

“Tom has done an extraordinary job for the Army,” said Dr. William van der Schalie, director of science and technology for USACEHR, who nominated Shedd for the award as well as previous ones.

“The award was easy to write,” said van der Schalie. “When I started to put all he’s done on paper ... it was more a matter of what to leave out.”

Although being recognized for his achievements isn’t something new to Shedd, he still remains modest about his most recent award.

“I’m humbled because, as always, it’s a team effort—not just one person. I consider myself a representative of my group,” he said.

With 30 years of federal service and 27 of those in his current position of research aquatic



*Tommy Shedd looks over an automated biomonitor that uses living fish to determine water quality.*

biologist, Shedd claims he’s still determined to outdo his first patented technology with faster and smaller molecular-level monitoring.

“This is just the tip of the iceberg,” he said. “In a few years from now they’ll (scientists) say ‘Boy! They used to use fish?’”

Until then, he can enjoy seeing his previous scientific achievements actually benefiting communities.

“It’s a scientist’s dream come true to see what you work on actually being put to use,” he said. “It’s very rare to go from a science write-up to commercial application.”

Shedd’s enthusiasm for his job is appreciated throughout his organization as he continues to push the limits of biological technology.

“There aren’t many folks more enthusiastic about their work and hobbies than Tommy, and it’s frequently hard to tell where one stops and the other begins,” said Lt. Col. Matthew Schofield, USACEHR commander. “He’s been able to successfully merge his interests and training into a vocation for over 20 years. The result is the aquatic biomonitor, multiple research publications, and patents, including one for hatching diapause killifish—instant fish, just add water!”

“His enthusiasm and knowledge base is outstanding,” Schofield added.

—Sarah Maxwell, Fort Detrick  
Public Affairs

## People in the News

### Two from institute win awards for excellence

Maj. Elizabeth Mann of the U.S. Army Institute of Surgical Research received the 2007 San Antonio Nursing Excellence Award May 10 at the American Association of Critical Care Nurses nursing appreciation banquet.

Mann is chief of Education at the USAISR Burn Center. She is responsible for staff education and training, burn outreach and clinical nursing practice. As clinical nurse specialist for the Burn Center, she provides educational opportunities for the staff, gives lectures on the management of the burn injured patient, facilitates clinical research civilities and develops evidence-based clinical practice guidelines.

During the past year she has collaborated with research fellows and implemented a correction factor for bedside glucometers to correct for anemia in critically ill patients. This correction formula has reduced the incidence of hypoglycemia in burn patients and has improved safe management of insulin administration. This work was selected for oral presentation at the American Burn Association annual meeting, the American Association of Critical Care Nurses National Teaching Institute and Critical Care Symposium and the American Association for the Surgery of Trauma. Mann is the principle investigator for a study to determine if non-pharmacologic treatment of Post Traumatic Stress Disorder in the burned outpatient is effective.

Dr. Nancy Molter won the American Association of Critical Care Nurses Pioneering Spirit Award at the same conference. She was one of five awardees recognized at this year's National Teaching Institute and Critical Care Exposition in Atlanta for her contributions to acute and critical care nursing. Her "scholarship and pas-

sion for family needs framed what has become a cornerstone of AACN's professional and public agendas," according to the AACN's Web site. Molter and another Pioneering Spirit Award winner developed a no-cost Critical Care Family Needs Inventory that is available online and in textbooks.

The tool measures family satisfaction and prepares multidisciplinary team members to meet the needs of family members whose loved ones are in a critical care unit of a hospital.

Established in 1969 to help educate nurses working in newly developed intensive care units, the American Association of Critical Care Nurses is the world's largest specialty nursing organization. The AACN currently represents the interests of more than 400,000 nurses who are charged with caring for the most critically ill patients. The association is dedicated to providing its members with the knowledge and resources necessary to provide optimal care to critically ill patients. In addition to publishing a monthly newsletter, AACN publishes a scientific research journal, a clinical magazine for the practicing nurse and a quarterly series for advanced practice nurses.



*Maj. Elizabeth Mann, right, receives the San Antonio Nursing Excellence Award from Maj. Gen. Melissa Rank, Air Force Nurse Corps chief May 10.*

### Information forum begins

The U.S. Army Medical Information Technology Center launched its first monthly videoconference with Army military treatment facilities' chief information officers May 23. The meeting will provide a technical and functional forum

for USAMITC to interface regularly and directly with its Army Medical Command customers to discuss and resolve common information management and technology issues. Leadership from 20 sites joined the inaugural meeting, where USAMITC briefed software deployments

and learned about configuration issues at several medical treatment facilities. Sites also signed up to receive Web-based training. Forum activities will be posted on the USAMITC extranet site at <https://mitc.amedd.army.mil/sites/IMO>.

## People in the News



*Maj. Vibol Kheiv, U.S. Army Medical Materiel Center, Europe and Cookie MacLeod, U.S. Army Medical Information Technology Center, inspect the new information technology hardware delivered to Pirmasens, Germany.*

### Center visits center

“Picture a Wal-Mart distribution center for medical materiel for the world,” said Erik Rabe of the U.S. Army Medical Information Technology Center, as he described the U.S. Army Medical Materiel Center, Europe, in Pirmasens, Germany. Rabe, Gary Humes and Cookie MacLeod of USAMITC traveled to Germany meet with USAMMCE customers and coordinate the installation and administration of a new Theater Army Medical Management Information System platform. USAMITC designed, deployed and sustains TAMMIS, the Army Medical Department’s medical logistics system.

The center in Germany uses TAMMIS to procure, process and distribute medical materiel

for the U.S. military in Europe, Africa, the Far East and the Middle East.

“I was simply swept away by the passion the USAMMCE staff had for their mission,” Rabe said. “They have customized their business processes without compromising the TAMMIS system, all in an effort to better serve the warfighters down range, whose lives are depending on them.”

The USAMITC team met with various functional areas within USAMMCE and left with a better understanding of the medical depot’s unique requirements and a deep appreciation for the sense of family that USAMMCE staff have.

—Pam Simpson, USAMITC

### New president

Col. Alan Magill, director of the Experimental Therapeutics Division at the Walter Reed Army Institute of Research, was elected president of the International Society of Travel Medicine May 23 at the society’s biennial meeting in Vancouver. The ISTM is a group of more than 2,000 members from more than 75 countries who are interested in the medical problems of travel.

The society is comprised of travel medicine practitioners,

researchers and individuals from related specialties and provides opportunities to learn and to network with like-minded individuals.

“I do consider it an honor to be nominated and win the election,” Magill said. “Ev-

eryone knows I am an active duty U.S. Army officer, and



*Col. Alan Magill*

that makes the result even more unusual because I could run from that background in an international setting and still be successful.”

The colonel will serve for a total of six years: two years as president-elect,

two as president, and two as past president.

## People in the News



### Re-enlistment

*Capt. Mecredi Cruder, left, detachment commander and re-enlisting officer for the U.S. Army Research Institute of Environmental Medicine, re-enlists Sgt. Marcus Tillis for three years as color bearer. Spc. Robert O. Nicholson looks on. Tillis will move to Aberdeen Proving Grounds, Md., his station of choice.*

### Overdue award

In an impromptu event at the Headquarters, U.S. Army Medical Research and Materiel Command June 5, Col. Jonathan Jaffin, acting commander, USAM-RMC, presented both the Legion of Merit and the Army Achievement Medal to retired Col. David W. Vaughn. The Legion of Merit recognized Vaughn's sustained outstanding contributions to the Military Infectious Diseases Research Program while assigned as MIDRP research area director for four and a half years. He received the Army Achievement Medal to recognize his effort in the planning and execution of the United States-Israel bilateral scientific exchange meetings held in late October in Shosh, Israel.



*Col. (retired)  
David Vaughn*

Vaughn now works for GlaxoSmithKline in vaccine and pharmaceutical development to combat infectious diseases worldwide.

### Profile

A graduate of Tufts University School of Nutrition, Col. Gaston Bathalon of the U.S. Army Research Institute of Environmental Medicine was profiled in "Tufts Nutrition," an alumni magazine. The article covers the work Bathalon is doing on weight-management for the Army and appeared in the Winter 2006 edition.



*John Ramiccio*

### Safe flyer

John Ramiccio, helicopter research pilot for the U.S. Army Aeromedical Research Laboratory, received a Certificate of Achievement in Safety May 24 from Capt. Eric Ansorge, USAA-RL adjutant/detachment commander, for career accomplishment of more than 3,000 accident-free flying hours. (Photo by Scott Childress)

## People in the News

### Blood drive

*Employees of the U.S. Army Medical Information Technology Center donate blood each quarter to benefit Soldiers and their families. The blood drive is scheduled through and facilitated by the blood donor center at Fort Sam Houston, Texas, one of many Armed Services Blood Program centers located worldwide. Donors are processed efficiently through a blood mobile that parks behind USAMITC's building. (Photo by Dee Crawford)*



### Academy recognizes chem defense research

At this year's annual meeting of the American Academy of Neurology, held April 28 to May 5 in Boston, Col. Jonathan Newmark, formerly of the Chemical Casualty Care Division of the U.S. Army Medical Research Institute of Chemical Defense, presented research performed at the USAMRICD on the efficacy of ketamine used in conjunction with diazepam as a potential neuro-protectant against soman-induced seizures. The principal investigators on the project are Dr. Margaret Filbert and Dr. Robert Kan, as well as Dr. Gerald Ballough, who is on the faculty of LaSalle University and performs research at the institute under contract.

Before the annual meeting, Dr. Stefan Pulst, the AAN Science Committee chair, contacted Newmark with the news that the abstract had been judged to be in the top five percent of the research being presented at the meeting and had therefore been selected for inclusion in his presentation, "The 100 Scientific Highlights." Pulst's presentation, given during the 2007 Scientific Program Highlights Plenary Session, covered research on such topics as aging and dementia, cerebrovascular disease and movement disorders. While Pulst's presentation during the meeting covered only 40 of the scientific highlights, all 100 are included in an AAN Web cast, which will be available for viewing on the ANN Web site.

### Headquarters awards

◆ At a ceremony at the U.S. Army Medical Research and Materiel Command headquarters June 7, Col. Harry Slife, former and final research area director for the Chemical and Biological Defense Research Program, received the Meritorious Service Medal for coordinating the United States-Israel bilateral scientific exchange meetings held in late October in Shoshon, Israel. "It's easy to accept accolades like this when you're standing on the shoulders of such great people," he said.

◆ Capt. Vince Myers received three awards at the June 7 ceremony. He received the Meritorious Service Medal for serving as aide de camp for Maj. Gen. Eric Schoemaker, former commander of the USAMRMC; the Army Achievement Medal for his work with the bilateral science meeting in Israel in October 2006 and the Military Outstanding Volunteer Service Medal for his work at former NASCAR driver Richard Petty's Camp Victory, where seriously ill children have a chance to play like regular children under close medical supervision.

◆ Master Sgt. Janine Osterberg, noncommissioned officer in charge of the Deputy Chief of Staff for Operations, received the Army Commendation Medal for coordinating and executing the Commander's Workshop, Senior Enlisted Advisor's Workshop and the Noncommissioned Officer of the Year and Soldier of the Year competition in San Antonio in March. Master Sgt. Gordon D. Nero, Sgt. 1st Class Clara J.

## People in the News

Burton, Sgt. 1st Class Toni M. Lewis, Sgt. 1st Class Marcus T. Nix, Sgt. 1st Class Gary B. Wiley and Sheniqua Bush received certificates of achievement for their assistance with the competition.

◆ Col. Bob Vandre, research area director for the Combat Casualty Care Research Program, received the Army Achievement Medal for his work with the Shoresh meeting in 2006.

◆ Lt. Col Stephen Dalal received the Army Achievement Medal for leading the Joint Trauma Analysis and Prevention of Injury in Combat Program.

◆ Peggy Nathan, Bobbie Powers, Heather Roberts and Ellen Strock received certificates of achievement for transcribing volumes of interviews for an investigation of allegations against the Walter Reed Army Medical Center.

◆ Sheniqua Bush of the Deputy Chief of Staff for Personnel received a special act award for revamping the command's military awards program.

◆ Christi Roberts, DCSPER, was commended for exceptional service for providing personnel support to the U.S. Army Institute of Surgical Research until that unit hired a personnel specialist.

◆ Courtney Hunt, DCSPER, received a time off award for essentially serving as the noncommissioned officer in charge of the office from July to September 2006.

◆ For her second award, Heather Roberts receive a certificate of achievement for assisting the Deputy Chief of Staff for Logistics in disposing of more than \$1 million worth of equipment.

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## News to Use

### **Inquiry program**

The Chemical and Biological Defense Information Analysis Center's Inquiry Program offers up to four hours of analyst time at no cost to the requestor to respond to any question pertaining to chemical, biological, radiological or nuclear defense. This service is available to Department of Defense agencies, military services, other federal government agencies, DoD and federal contractors and state and local governments and emergency response organizations.

To post an inquiry, use the "Submit an Inquiry" form on the CBIAC's Web site ([www.cbiac.apgea.army.mil](http://www.cbiac.apgea.army.mil)).

### **Training available**

The MeRITS Project Management Office is offering FRED (FDA-Regulated Electronic Documents) End User Training twice a month in Maryland: one session at Fort Detrick and one at the Walter Reed Army Institute of Research. These sessions are scheduled now through December.

The training course provides an overview of the Electronic Document Management System, branded "FRED," and the basic skills needed to use the system. Skills include logging into FRED, navigating the system, searching for information and viewing and downloading documents stored in FRED.

To participate in the training and obtain a FRED username and password, trainees need to complete the MeRITS Regulatory Information Systems Course 100 Series Training Program, available on CD-ROM. This program provides basic regulatory information systems instruction as it pertains to the FDA-regulated activities performed everyday at the command. Any individual conducting FDA-regulated activities should complete the training.

For more information on dates, times and locations of FRED End User Training or to register for a training session, visit the MeRITS Training Calendar online at [www.merits.army.mil/training/training.html](http://www.merits.army.mil/training/training.html).