

# THE POINT

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

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## Researchers' information system goes live

A project to ensure researchers' electrons are acceptable to the Food and Drug Administration took a step forward March 28 when program managers for the Medical Research Information Technology System at Fort Detrick plugged in a system that manages electronic documents.

An FDA regulation—21 CFR Part 11—is driving the MeRITS initiative. Dealing with electronic management of documents and submission to the FDA, the regulation requires the command to prove data integrity.

"Information is really the commodity of this organization," said Col. Ralf Brueckner, leader of the U.S. Army Medical Research and Materiel Command's MeRITS project. "All the work that we do is to answer questions or provide information to the FDA so they can make their decision to approve or not approve a product."

The first component of MeRITS, the Electronic Document Management System, is housed at the Fort Detrick Directorate of Information Management. It was there that Maj. Gen. Lester Martinez-Lopez, then-commanding general of USAMRMC, connected the cable for the system to reach the outside world via the Internet March 28.

The system, he said, "will make it possible for MRMC to store, access and share all those FDA-regulated documents. We now have one central location, right here, a virtual location that is protected from unauthorized access but can easily allow anyone with a need to know and permission to access those documents, to get the documents without having to hunt on the various personal computers, under the desk, or in the filing room."

Inspectors can come at any time to audit the system, said Mike Jewett, the director of the DOIM.

"When they're (the FDA) ready to come to see us, we're confident we'll pass," said Jerry Kollars of the MeRITS team who also crafted DynPort's document management system.

Brueckner said that improving business processes is another strength the document management system brings to the command. Because researchers in the past didn't have a clear cut method for compiling documents the FDA required, they developed their own. Having this new system will take the inconsistency out of the process so everyone will understand how things are filed and be able to find them quickly.

"They will spend time using information rather than finding or putting it someplace," Brueckner said. "They will spend more time making informed decisions."

The system's gatekeepers will be the knowledge managers, who will load data like study protocols, reports, FDA correspondence, training documentation, "basically all the documents that would go to the FDA for an IND (investigational new drug) submission, as well as documents that we have to maintain internally as part of doing FDA-regulated work," Brueckner said.

Every lab in the command will have knowledge managers who use their judgment as to what belongs in the document management system and will make the information accessible to users. These data gatekeepers ensure information remains a usable, searchable asset and not a cluttered network drive.

At the heart of the Electronic Data Management System are users' needs. In fact, users must be consulted about what the system should offer as part of complying with the FDA's requirements for a validated system.

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## Command to get new leader this month

Brig. Gen. Eric Schoomaker takes command of the U.S. Army Medical Research and Materiel Command and Fort Detrick in a ceremony July 7.

Born into an Army family in Detroit, in 1970 he graduated from the University of Michigan in Ann Arbor, was commissioned a second lieutenant as a distinguished military graduate and awarded a Bachelor of Science. He received his medical degree from the University of Michigan Medical School in 1975 and in 1979, he completed his Ph.D. in human genetics.

He completed his internship and residency in internal medicine at Duke University Medical Center in Durham, N.C., from 1976 to 1978, followed by a fellowship in hematology at Duke in 1979. He is certified by the American Board of Internal Medicine in both Internal Medicine and Hematology. His military education includes completion of the Combat Casualty Care Course, the Medical Management of Chemical Casualty Care

Course, the AMEDD Officer Advanced Course, Command and General Staff College, and the US Army War College.

Schoomaker's career includes time

spent as a research hematologist at the Walter Reed Army Institute of Research from 1979 until 1982.

His most recent assignment was as commanding general of the Southeast Regional Medical Command/Dwight David Eisenhower Army Medical Center at Fort Gordon, Ga.

In August 2002, The Army Surgeon General appointed General Schoomaker to the position of chief of the Army Medical Corps.

Schoomaker is married and has three children.



*Schoomaker*

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### **"MeRITS," continued**

"This needs to be the system of the people in the laboratory," said Brad Goebel, who used to work at one of the command's labs and brought his expertise from working there to the 10-person team at the MeRITS office. "We cannot come up with all the business requirements ourselves, nor should we."

Two other systems—the Laboratory Information Management System and Clinical Data Management System—

are also in the works. Currently, the Laboratory Information Management System is being tried out by researchers at the Armed Forces Research Institute of Medical Sciences in Thailand because many large, advanced clinical trials take place there.

So far, the toughest part of the project, Brueckner said, is changing the way the command does business.

"What we're asking people to do is change

what they're comfortable with and what's worked for them," he said.

Just as e-mail had its early detractors but is now indispensable, the MeRITS team believes the command will also embrace the new systems.

"When I visited places that have these systems in place, I've heard comments like 'Now that I work here, I will never work for an organization that doesn't have these capabilities,'" Brueckner said.

## Course prepares hospital pros for attacks

A new training course, the Hospital Management of Chemical, Biological, Radiological, Nuclear and Explosive Incidents Course, now gives civilian healthcare professionals state-of-the-art instruction that may save lives in a major terrorist attack. The first three offerings, in December 2004 and in March and April 2005, trained 147 students.

An effort that started with a request from the Department of State for training for visiting senior physicians from the Republic of the Philippines turned into an ongoing five-day course designed specifically for civilians. The objective in developing the course was to leverage military expertise in training those who might be called upon to manage casualties of chemical, biological, radiological, nuclear and high-yield explosive weapons.

“It is a no-brainer to me to extend the Army’s proven, recognized expertise in areas like chem-bio and rad-nuke medical management to the civilian sector,” said Dr. C. Gary Hurst, chief of the Chemical Casualty Care Division of the U.S. Army Medical Research Institute of Chemical Defense who initiated the course. “There’s a tremendous need for this sort of training, and the Army does it better than anyone else.”

The HM-CBRNE Course is hosted by the Chemical Casualty Care Division and is a joint venture of USAMRICD, the U.S. Army Medical Research Institute of Infectious Diseases and the Armed Forces Radiobiology Research Institute. Guest instructors from the School of Medicine at Johns Hopkins University in Baltimore also participate.

Instruction includes classroom presentations on chemical agents, triage, personal protective equipment, de-

contamination, radiation, biological agents, epidemiology, the National Incident Management System and the National Response Plan.

The training also consists of in-class discussions, planning sessions, group exercises involving specific scenarios, and a multi-hospital

tabletop exercise specifically designed to test the students’ ability to use the Hospital Emergency Incident Command System, which is being adopted by many hospitals nationwide. In the exercise, a simulated attack requires professionals at separate hospitals (and, when applicable, an incident site) to manage their resources to deal with the crush of patients.

Almost half of the students who have taken the first two iterations of the HM-CBRNE course have been military. Among the civilian students have been physicians, nurses, emergency managers, hospital system administrators and public officials from all over the country.

The next course is scheduled for Aug. 15-19. More information about the course is available from the Chemical Casualty Care Division, USAMRICD, at 410-436-2230/3393 or by e-mailing [ccc@apg.amedd.army.mil](mailto:ccc@apg.amedd.army.mil).

—By Col. Jonathan Newmark  
U.S. Army Medical Research  
Institute of Chemical Defense



*At an event site's tabletop exercise, students assume their roles responding to a mass-casualty incident.*

## Materiel developers celebrate 20 years

About 20 alums and a couple of past commanders came to Fort Detrick March 17 to help celebrate the U.S. Army Medical Materiel Development Activity's 20th anniversary.



*Col. George Lewis, one of USAMMDA's former commanders, provided the unit's history for attendees at the 20th anniversary event.*

"Congratulations on keeping the force fit for the field," by facilitating the transition of medical products from the lab to the user, said Col. George Lewis, one of USAMMDA's former commanders, now retired, who provided the unit's history for the attendees at the event.

The idea of having a unit like USAMMDA came about 25 years ago when Col. Ed Busher created the Directorate of Development and Production Management for the U.S. Army Medical Research and Development Command. On March 15, 1985, Col. Harry Dangerfield transitioned the directorate's staff of 20 military officers and 30 civilians into USAMMDA.

Dangerfield, the "founding father" of the activity, said he was happy to be able to attend the ceremony along with the unit's military and civilian legacies, like Dee Albright, who worked for the activity since its beginning. Former USAMMDAite Dr. Ron Clawson continues his advanced development work but now with Chem-Bio Medical Systems, the organization that deals solely with chemical and biological defense products. Col. Larry Lightner, now retired, is back for his third tour.

Lewis listed some of the unusual acronyms that came have out of USAMMDA: OSMOGS (on-sight med-

ical oxygen generation and distribution system), REFLUPS (resuscitation fluid production and reconstitution system) and IDSBARF (identification and diagnostic system biological agent rapid field). All were met with laughs from the crowd.

The celebration marked two decades of the activity's developing and fielding medical materiel to protect the fighting force, Lewis said.

"The weight of the fighting force is on your shoulders as it was yesterday, as it is today and will be tomorrow," he said.

At the event Col. James Romano, then-deputy commander of the U.S. Army Medical Research and Materiel Command, echoed Lewis's remarks.

"In April 2003, I was watching CNN and there were U.S. elite forces moving door to door in a hotly contested city in Iraq, and those elite forces were carrying on their person five different (chemical defense) products that came out ... of advanced development. That's who benefited," he said. "You served the country, and I can think of no higher calling than that."

Greeting and being greeted by her former co-workers with hugs and exclamations, Kathy Small said, "There's just something about being on this turf that makes you happy."

Photo collages of past and current team members also added to the room's décor. Promotions, farewells, pot lucks and visits to Santa's lap were on display for all to recall. Instead of having a traditional sheet cake for its anniversary, USAMMDA decided to have 20 cakes.

"You never go hungry at USAMMDA," one attendee remarked.

## Program exposes children to science

Exposing students in D.C. to the wonders of science every summer takes a lot of creativity, a lot of planning and a lot of money. Just ask the women who created and continue the Gains in the Education of Math and Science, or GEMS, program at the Walter Reed Army Institute of Research.

For the past 10 years, Debra Yourick, Marti Jett and Margery Anderson have made sure the GEMS program has given more than 650 students from the Washington area a chance to spend a week or longer at the institute, building robotic arms and motors or working with gene cloning, cell cultures and brains.

“Over the years we recognized that we can’t just work with the students for a few hours like in a science museum. That doesn’t change a career path for a child,” Yourick said.

The WRAIR team administers the D.C. Citywide Mathematics, Science and Technology Fair every year. While younger children may win certificates and checks for \$25, older participants can be awarded a full summer internship and \$1,500. All eighth grade students are invited for one-week internships, and about 50 of the most promising ninth to twelfth graders are offered a chance to work at the institute’s learning lab.

The winners are all “enthusiastic students but don’t have great science backgrounds yet—but that’s our business, we give them that background,” Yourick said. “It’s the beginning of what can be a lifelong interest in learning.”

Working in the lab that was originally designed for a tropical medicine course, up to 35 GEMS youth can participate during one of the eight weeks the program is offered. Amid the dramas of youth, like minor ro-

mances and blossoming friendships, students stay busy for six hours a day with math, biology, physics and chemistry—with no tests.

“They actually come early, and having them go home is always a challenge,” Anderson said.

For the “gems” who complete their week—and 98 percent of them do—they leave with a certificate, a \$100 check and an invitation to return the next year if the staff recommends them for it.

The second level of GEMS gives the students a \$50 raise and another week to explore science. The third level ups the ante to four or eight weeks of much more sophisticated experiments and a check for \$700 or \$1,500.

Key to the GEMS program’s success, Yourick said, are near-peer mentors. Charged with teaching the program, near-peer mentors are college students who work in the learning lab full time in the summer and work part time in the labs the rest of the year.

“They do our research, and they also do outreach. They’re critical,” Yourick said. Moreover, the near-peer mentors forge relationships with the gems that have a lasting impact.

“My feeling is that if you don’t have the ... contact that we have with the near-peer mentor student interaction, you will not change the life of a child,” Yourick said. “For us, mentoring is two people in the same place—not meeting on the Internet as some out-



*Isoke DeLeon, a three-year participant in the Gains in the Education of Math and Science program at the Walter Reed Army Institute of Research in Silver Spring, Md., peers through the teaching lab’s microscope.*

**See “Gems” page 6**

# Electronic textiles may help medics

Two Soldiers are down, which one should a medic help first? When this dilemma plays out on today's battlefield, a medic can't be absolutely certain he's making the right decision.



*The WPSM team is on schedule to deliver a system in 2006 that can detect if a Soldier is alive or has received a ballistic impact.*

However, medics in the not-so-distant future will be able to make the right decision using a system called Warfighter Physiological Status Monitoring that allows, among other things, remote triage of injured Soldiers using leading-edge technology, like electronic textiles.

"The medic will remotely know who's been injured and who he should go to first versus what we do now (which is have the medic run to and find an injured Soldier, not knowing if another individual is in worse shape just 20 yards to the left," said Col. Beau Freund of the U.S. Army Research Institute of Environmental Medicine.

A group comprised of experts in

physiology, engineering, electronics and textiles is developing WPSM for the Future Force Warrior, the Army's science and technology initiative to develop and demonstrate revolutionary capabilities for future Soldier systems. The team, Freund said, is on schedule to deliver a system in 2006 that at a minimum must be able to detect if a Soldier is alive or has received a ballistic impact. On the preventive medicine side, the WPSM system also needs to be able to detect how much fluid the Soldier is drinking and if the Soldier is in danger of a heat injury.

The WPSM system has three aims. The system, first, should reduce combat morbidity and mortality by providing a medic situational awareness of the health status of his warfighters. Preventive medicine is the system's second component. By monitoring fluid intake, body temperature and heart rate, the WPSM system can give an idea of who is likely to become a heat casualty. And the third aim is giving commanders a snapshot of the overall health of their Soldiers.

**See "Textiles" page 7**

## "Gems," continued

reach programs do."

Gems seem to respond to the near peers, Jett said.

"Kids ... will come in and meet cool mentors who might have blue hair who introduce them to exciting courses in science," she said. "It's a good way to tell them that there are a lot of people interested in what they're doing."

The program has been very successful, Anderson said. So much so that the program had to turn away 100 students who were on the waiting list during the summer of 2004.

"We're facing an onslaught of parents who are saying 'We want our kids to participate in your program,'" Yourick said. "It's not a deliberate campaign, but we talk to 400 to 500 parents a

year, and it's getting out of hand and we need new places to go."

George Washington University has agreed to take 120 to 180 gems this summer, which will alleviate some of the overflow. The Army, too, is helping to disseminate the program by providing \$250,000 to fund the program at Army research centers at Fort Monmouth, N.J.; Fort Rucker, Ala.; and Huntsville, Ala.

"What we found is we can take our trained near-peer mentors and send them out to these places to bring science activities to an area," Yourick said. "You can see the difference science opportunities have made in children's lives. If you could do this on a large scale, think of how it could change our educational system."

**“Textiles,” continued**

“We’re not just looking at the medical solutions to help a medic, but we’re providing commanders and operational unit leaders with situational understanding that will help them do their jobs,” Freund said.

**Early version**

When the team embarked on creating the WPSM system, they knew it couldn’t degrade performance.

“All warfighters need to be able to do three things: shoot, move and communicate. It (WPSM) has to have zero downsides,” said Freund, who has worked on the WPSM team for two and a half years.

Currently, the system’s temperature, life sign and ballistic impact detection sensors are contained in a soft belt created by Foster-Miller that’s sewn into an Army-issue t-shirt. The company, based in Waltham, Mass., has the job of integrating the sensors with the fabrics.

“This work has been going on in the Army for quite some time, so we get this great synergy of all these sensor developments they’ve done and the algorithm knowledge they have,” said Douglas Thomson, business development manager for Foster-Miller.

Sensors have been a preoccupation for Foster-Miller’s Joe Ting. An engineer, he ensured sensors measuring heart rate, breaths taken, skin temperature and ballistic impact from various manufacturers all were included in the system. Sensors typically are about an inch square, Ting said, with the temperature sensor about the size of a dime. The largest is the respiration sensor, which goes around the chest and when it stretches, it implies respiration is happening.

“In the short term (from sensors) you want to be able to tell that something’s wrong, or that somebody’s hurt. In the future you really want to be able to tell exactly what is wrong, how bad it is, and what can I do to help,” Ting said.

**Tough shirt**

Putting the sensors on a belt that’s sewn into a shirt that moves helps fulfill the mandate of not interfering with a Soldier’s performance.

“You can’t stick electrodes on a Soldier who is going to be running through dirt and swamps. (Sensors are) going to have to be gel-free, stick-free, and work without shaving people,

or else it simply won’t happen,” Thomson said.

Concerns about how the system works under body armor, how data is transmitted and whether a belt will stay in place are all being studied. A promising solution is embedding the sensors in shirt

like athletes wear that wicks off sweat. Having this new-age shirt would combine temperature control with super-fine conductive fibers that can transmit data to medical devices via a wireless electronic information carrier.

“We’re working on the marriage of electronics and fabric structures,” said David Costello of Malden Mills in Lawrence, Mass., which has partnered with Foster-Miller and the Army for the WPSM program. “Malden Mills is knitting into the fabric a conductive fiber that’s about as thin as a hair and that fiber ... is as durable and robust as the rest of the fabric and a conduit through which you can flow either energy or information.”

Wearability and durability, Costello said, are two main concerns in designing the textiles.

“When you think about what Soldiers are wearing these days, with body armor on top of this, as well as load carriage systems, backpacks and weapons and belts, it needs to be totally integrated with what a Soldier wears so there are no issues with it rubbing a funny way or crushing a sensor.”

The fibers in the shirt must also be able to withstand the rigors of a knitting machine, a washing machine and a Soldier’s lifestyle.

“You need it to stand up to ... everything that it is going to get exposed to once it’s being worn around,” Costello said. “(It’s got to be) abrasion resistant, stand up to sweat and blood and dirt and salt and cold and wet and getting crammed into a backpack and sitting there for two weeks.



*The WPSM system also needs to be able to detect how much fluid the Soldier is drinking and if the Soldier is in danger of a heat injury.*

## IT experts open service center

When Col. Monty Nanton took command of the U.S. Army Medical Information Technology Center, he conceptualized a capability that would enable the Army Medical Department to move from operating its dozens of medical activities independently to providing enterprise management for all the medical activities from one central location.



*In April 2004, the USAMITC completed its Enterprise Service Center that will enable the USAMITC to manage information technology services from an enterprise level.*

In April 2004, the USAMITC completed its AMEDD Enterprise Service Center, which will enable the USAMITC to manage IT services from an enterprise level.

The AESC is equipped with a sophisticated and versatile technical layout that allows the room to complete something as rudimentary as recording a video conference in VHS format to monitoring the entire AMEDD's IT infrastructure.

The room is furnished with consoles facing a huge video wall with associated feeds. These data feeds project charts, pictures, and graphs depicting various infrastructure activities throughout the AMEDD. Thus, this wall provides a real-time lens to view and monitor the health and welfare

of the Army Medical Command enterprise IT infrastructure and the systems that ride on that infrastructure.

The USAMITC will staff the center 24 hours a day, seven days a week to monitor the status of the infrastructure. Using push technology and enterprise management tools, information can be projected on the video wall that warns engineers of potential problems and gives them lead time to avert or correct problems.

In addition to this center, the USAMITC is also co-locating its Centralized Service Desk with the AESC. The Centralized Service Desk project provides support for the AMEDD's enterprise systems. Adjoining the rooms allows information to flow easily between network engineers and help desk technicians.

As the USAMITC enhances this resource with additional monitoring tools, the USAMITC can perform trend analysis on infrastructure usage data. With this analysis, the MEDCOM can make informed decisions on ways to better use its existing infrastructure or support upgrades to the infrastructure. The USAMITC can also identify, diagnose and correct potential problems in the delivery of information technology services to the MEDCOM enterprise before they occur or reduce their impact.

"This room will allow the MEDCOM to move from a 'reactive' mode to a 'pre-emptive' mode when dealing with its infrastructure problems," said Maj. Nanette Patton, project director of the AESC. "This project is a key enabler to providing IT services managed at the enterprise level with a netcentric view."

—Cynthia Hernandez  
U.S. Army Medical Information  
Technology Center

## Patented treadmill advances gait studies

Each foot gets individual attention on the Force Sensing Treadmill, a newly-patented design invented by research physiologists at the U.S. Army Research Institute of Environmental Medicine.

Built by Advanced Mechanical Technology Inc. of Watertown, Mass., the treadmill features one rolling belt in front of another, each with its own independent force platform attached to a common chassis.

The treadmill gathers more and higher quality data during gait studies in much shorter time than traditional methods, said Peter Frykman, who along with Everett Harman and Michael LaFiandra invented the treadmill as an upgrade to the existing force platform used in the Center for Military Biomechanics Research, a facility shared by USARIEM and the Natick Soldier Center at the U.S. Army Soldier Systems Center in Natick, Mass.

“During previous gait studies, the test subjects had to step on the force plate just right,” Frykman said. “That made it very hard to walk naturally. In addition, you had to assume that what was happening on the right foot was happening to the left foot as well.”

By positioning the two rolling belts front and back moving at the same speed, separate information on the three-dimensional forces and torques on each foot can be collected during walking or running the entire time either foot is in contact with the belt.

“(With this treadmill), you’re never situated where both feet are on the same belt at the same time. To get a good analysis, you need to know the force on each foot separately,” Frykman said.

He said data collection from each foot is especially important while walking because during part of the stride, both

feet are touching the ground at the same time. That is when a single force platform under a treadmill belt cannot tell how much of the total force is on each foot.

Computer post-processing produces independent time records of the forces on each foot with the new treadmill. The computerized system records thousands of data points per second captured by the force-platform treadmill and video cameras for later analysis, assisted by reflective markers worn by test subjects.

In five minutes of testing, researchers can now collect more information than when conducting many trials over several hours using a conventional force platform.

Knowing the magnitude and direction of forces on the feet as well as body motion information recorded with high-speed video cameras allows researchers to use computerized mathematical models to calculate the forces and torques at the ankles, knees, hips and the other major body joints, Harman said.

Universities conducting biomechanics studies and hospitals with gait analysis labs for medical diagnosis and physical rehabilitation are potential customers for the new treadmill



*The Force Sensing Treadmill gathers more and higher quality data during gait studies in much shorter time than traditional methods.*

—Curt Biberdorf  
Natick Soldier Center

## People in the News

### Purple Heart awarded

It's said that patience is a virtue, but tenacity has its virtues as well. Capt. Bryan Walrath of the Health Facility Planning Agency learned that lesson when it came to receiving a Purple Heart medal for wounds he received in Iraq.

Maj. Gen. Darrel Porr, the Joint Staff surgeon presented the 31-year-old health facility planner the medal in front of about 75 people in Falls Church, Va., March 4—nearly a year after Walrath was wounded.

"It was kind of a closure event for me," Walrath said of the presentation.

On March 13, 2004, the captain was heading to his sleeping trailer after visiting his office in the Green Zone. For two months his job there had been to work with the Coalition Provisional Authority, helping the Iraqi Ministry of Health plan their healthcare infrastructure.

When Walrath reached the center of the dark trailer complex around 10:30 p.m., he was attacked from behind. With three stab wounds to his back—one of which punctured his left lung—he struggled with the man who wielded knives in both hands. After wrestling with the attacker, Walrath managed to hit him several times in the throat, making his slasher drop one of his weapons.

"I didn't have any reason to be singled out other than just being an opportunity for a bad guy to do harm," Walrath said. "I'm actually glad that I was singled out as opposed to an older contractor or someone who couldn't have put up a fight, because I think that's what saved my life."

As Walrath yelled for help, his attacker got away, leaving him with 12 deep wounds on his head, neck, back and finger. Severely bleeding and with a collapsed lung, the captain was taken by ambulance to the 31st Combat Support Hospital a mile away.

"I got the call early on a Sunday morning ... and basically, I was shocked," said Col. Rick Bond, commander of the U.S. Army Health Facility Planning Agency. "When I knew he was safe and in good hands, there was a lot of relief that, though his wounds were pretty serious,

he was being well taken care of by the staff at the hospital in Baghdad."

From Iraq, Walrath was evacuated to Germany and then to Walter Reed Army Medical Center in Washington for care.

"I'm very fortunate to have come out of this with zero long-term effects," Walrath said. "If you look at the first (cut) he made, it was a 'once and done'

move that just missed my voice box and jugular. And another was just a half inch from my eye. I'm truly blessed and lucky."

Though many Purple Heart recipients receive their medals while they're still in their hospital beds, Walrath's didn't show. For a commander to recommend the award, Army regulations say "the key issue that commanders must take into consideration is the degree to which the enemy caused the injury." Two words that appeared in the initial and second investigation reports—"unknown assailant"—meant Walrath's medal wouldn't be automatic.

"If I were attacked on the streets of Iraq under the same exact circumstances, I think it would have been a lot easier to say, 'Yeah, that was probably a bad guy,'" Walrath said. "But we were the only two people out there; there were no eyewitnesses."

After the second report, the staff of the Office of the Surgeon General put together a package for Army Human Resources Command to get Walrath the medal. By January, his Purple Heart medal was approved.

"I was relieved to get it and get it behind me, but it really wasn't ... until the actual ceremony that it struck a little emotion with me," the nine-year-Army veteran said. "Just seeing all the support and the friends, family and peers who were there. It was pretty special," he said. "They've all told me to make this the one and only time I get this awarded."



Walrath

## People in the News



*Officials cut the ribbon to the renovated building that houses the U.S. Army Center for Environmental Health Research.*

### Home again

After a little more than two years of working in a temporary trailer, the U.S. Army Center for Environmental Health Research is now in its renovated office at Fort Detrick. A ribbon-cutting ceremony April 11 marked the center's move home after a \$13 million renovation gutted the 1950s-era building to its foundations.

Lt. Col. Rodger "Keith" Mar-

tin, commander of USACHER, said he and his staff are pleased with the transformation.

"Prior to the renovations, the building was in significant disrepair and was not conducive for our needs as medical material developers," he said. "Although we were temporarily displaced in trailers for two years, the wait—though difficult—was obviously very worthwhile. We now have a

modern facility that will enhance our ability to meet our research requirements."

The center develops material solutions to mitigate the effects of environmental health hazards, primarily against toxic industrial chemicals and materials. Its research portfolio is divided into two complementary areas, environmental sentinel biomonitors and biomarker discovery.

### Awards

The U.S. Army Medical Materiel Center, Europe recently presented Soldiers with awards:

⌘ Maj. Gilroy Gotiangco earned a Meritorious Service Medal

⌘ Maj. Jeffrey Roberts earned a Meritorious Service Medal

⌘ Maj. Thomas Wiczorek earned a Meritorious Service Medal

⌘ Maj. James Tuten received the Bronze Star

⌘ Sgt. David R. Bradford received an Army Commendation Medal

### Future officer

Staff Sgt. Gary Bush of the U.S. Army Medical Research Institute of Infectious Diseases is heading to Officer Candidate School. The 2003 Noncommissioned Officer of the Year for the U.S. Army Medical Research and Materiel Command has been in the Army for six and one half years as a medical laboratory specialist.

Bush earned his Bachelor of Science degree in health sciences from Touro University and an Associate of Science in clinical labora-



*Bush*

tory science from George Washington University.

Currently the assistant noncommissioned officer in charge of the virology division at USAMRIID where he's working on development of an Ebola virus vaccine, Bush also helped develop two vaccines for the bacteria known as Burkholderia pseudomallei. The Clinton, Md., native served as the senior lab technician for the USAMRIID Aeromedical Isolation Team for three years and was later featured with the team in National Geographic magazine in February 2002.

Bush is a member of the Fort Detrick Sergeant Audie Murphy Club and in his free time he coached the post's women's softball team and was player-coach for the men's team.

Bush leaves for OCS in January 2006 and will be a Medical Service Corps officer.



McDonough

### Commendable medal

Capt. Ed McDonough, former aide de camp for the commanding general, U.S. Army Medical Research and Materiel Command, received an Army Commendation Medal April 8 at Fort Detrick, Md. McDonough is now working at the Telemedicine and Advanced Technology Research Center, Fort Detrick.



Haralson

### Meritorious medal

Sgt. 1st Class Stanley Haralson received a Meritorious Service Medal April 8 at Fort Detrick, Md., for serving as the enlisted aide de camp for the commanding general, U.S. Army Medical Research and Materiel Command. Haralson also stood in as the general's aide de camp when required.

### Achievers

Soldiers at the Walter Reed Army Institute of Research continue to

achieve.

Graduates of the U.S. Army Drill Sergeant School at Fort Jackson, S.C, are:

- ⌘ Staff Sgt. Carlos Wright, Commandant's List
- ⌘ Staff Sgt Tanisha Hureta
- ⌘ Staff Sgt. Garrett Moses has been selected to attend the U.S. Army Drill Sergeant School

Recent graduates of the Primary Leadership Development Course are:

- ⌘ Spc. Jason Timberlake, Commandant's List
- ⌘ Spc. Christian Hannon
- ⌘ Spc. Christopher Jensen, Dental Research Detachment
- ⌘ Spc. Toya Murph, Dental Research Detachment
- ⌘ Spc. Renee Roberts

Recent graduate of the Basic Non-commissioned Officer Course

- ⌘ Staff Sgt. Kevin Muravez
- Eight Soldiers inducted in the NCO Corps May 20:

- ⌘ Sgt. Philip Adams
- ⌘ Sgt. Joseph Childs
- ⌘ Sgt. Kareem Clayborne
- ⌘ Sgt. Shakeia Davis
- ⌘ Sgt. Audrey Hamilton
- ⌘ Sgt. Ricardo Martinez
- ⌘ Sgt. Gerald Sim
- ⌘ Sgt. Dara Wolf

Several Soldiers earned degrees and certifications:

- ⌘ Sgt. Natalie Condos earned her certification in massage therapy.
- ⌘ Spc. Tanya Cook earned a Bachelor's degree from Old Dominion University in medical technology.
- ⌘ Sgt. Renee Roberts earned a Bachelor's degree from George Washington University in health sciences.
- ⌘ Spc. Heather Gaona earned a Bachelor's degree from the University of Montana in wildlife biology.
- ⌘ Sgt. Sherwin Sapasap earned a Master's degree from Johns Hopkins in biotechnology.

People in the News

**Thurman award**

Dr. Gary Gilbert of the Telemedicine and Advanced Technology Research Center received the Gen. Maxwell Thurman Award April 18 at the American Telemedicine Association’s annual conference in Denver.

Col. James Romano, commander of the U.S. Army Medical Research and Materiel Command, presented the yearly award that honors a “champion, pioneer and innovator” in the field of telemedicine and advanced medical technology.

“He (Gilbert) is my covert link to TATRC,” Romano said. “He’s very patient at explaining goals, direction and technology and has been a tremendous mentor and spokesperson for where the Army wants to go with these technologies.”

Gilbert, the director of the Knowledge Engineering Group at TATRC, recalled being in a meeting in 1993 when Thurman created TATRC’s predecessor, the Medical Advanced Technology Management Of-



Gary Gilbert and Col. James Romano with the Gen. Maxwell Thurman Award April 18 in Denver.

fce.

“We had a controversial philosophy: build it and they will come,” he said. “That philosophy is alive and well at TATRC. We built it, and they came.”

The retired Army colonel and Special Forces commander dedicated his award to the “behind-the-scenes” people at TATRC, the administrative assistants, budget and logistics professionals and the workers in the Prototyping Integration

and Testing laboratory. He also thanked his wife Lt. Col. Trinkia Coster, an Army physician, for providing him “reality checks” for what technologies patients and medical professionals will accept.

Gilbert also thanked the people at TATRC.

“It’s not often you work at a place where you have the freedom of when you say, ‘I have a great idea’ that you can pursue it,” Gilbert said.

**Re-enlistments**



Henderson

⌘ Staff Sgt. Sion Henderson, driver for the commander of the U.S. Army Medical Research and Materiel Command and Fort Detrick, re-enlisted April 7 before the weekly command-wide video teleconference.

⌘ Staff Sgt. Brett Long and Sgt. Andre Battles of the Walter Reed Army Institute of Research re-enlisted in May.

During the past six months at the U.S. Army Research Institute of Environmental Medicine, the following Soldiers re-enlisted:

- ⌘ Sgt. Tommy Bruington
- ⌘ Spc. Joseph Castor
- ⌘ Spc. Andrew Coggins
- ⌘ Staff Sgt. James Crandall
- ⌘ Staff Sgt. Dan Ditzler
- ⌘ Sgt. 1st Class Tulio Espailat
- ⌘ Sgt. Reginal Robinson
- ⌘ Sgt. Dennis Rufolo
- ⌘ Sgt. 1st Class Robert

Stevens

⌘ Sgt. John Bey and Spc. Elizabeth Lerin of the U.S. Army Medical Research Institute of Infectious Diseases re-enlisted May 4.



Lerin

### Days of Remembrance

Five Soldiers from the U.S. Army Medical Materiel Center, Europe traveled to Krakow, Poland, April 22-25 to visit the World War II Auschwitz-Birkenau death camps and Schindler's factory. The Soldiers, accompanied by two wives and one girlfriend, made the trip during the Army's "Days of Remembrance" program. The Jewish Yom HaShoah, Holocaust Memorial Day, takes place in April.

"Seeing Auschwitz in person gave me a new understanding of the hatred that was directed against these people and the horrible crimes that were committed there," said Sgt. 1st Class Kyle Brunell. "Reading about the death camps in history books is one thing; going there is whole (different) experience."

The five Soldiers and their companions traveled to Katowice, Poland, by air, then continued on to Krakow by bus. They were met by a guide who accompanied them to the Fabryka Oskara Schindlera (Schindler's factory), which still stands on the original site and was the location for the filming



*In April Spc. James Rolands, Olga Rowlands, tour guide Tomasz Cedulski, Sgt. 1st Class Kyle Brunell, Stephanie Swart, Capt. Stephen Speer, Maj. Thomas Wieczorek, Diana Poulin and Sgt. James Poulin visited Auschwitz.*

of the movie, Schindler's List.

They then visited the Auschwitz-Birkenau death camp, which has become a worldwide symbol of terror, genocide and the Holocaust. The Soldiers toured the grounds of the camps, the gas chambers, the ovens and the storage facilities which still contain remnants of items taken from the prisoners.

"There were piles of shoes, clothing, glasses and hair shorn from the prisoners," said Sgt. James Poulin, who made the trip to Poland with his wife, Diana. "The baby's clothing was the worst—the hardest to see."

—Cheryl Navo  
U.S. Army Medical  
Materiel Center, Europe

### Awards celebration

The U.S. Army Medical Materiel Development Activity honored Mark Brown for his 20 years of service and Dr. Dai K. Liu for his 15 years of service at an awards ceremony April 26. Jolinda A. Summers was named employee of the quarter for the period Jan. 1 to March 31.

### Audie Murphy Inductees

On May 17 the following Soldiers

were inducted into the Audie Murphy Club:

- ⌘ Staff Sgt. Garrett Moses, Walter Reed Army Institute of Research
- ⌘ Staff Sgt. Chanda Sutton, U.S. Army Medical Institute of Infectious Diseases
- ⌘ Staff Sgt. Melissa Hunter, USAMRIID
- ⌘ Maj. Gen. Lester Martinez-Lopez, U.S. Army Medical Research and Materiel Command.

## People in the News

### Federal Executive Board winners

Sandy Hendry of Headquarters, U.S. Army Medical Research and Materiel Command, took home a gold medal in the Federal Executive Board's Excellence In Federal Career Awards Banquet and Ceremony held in Baltimore May 6.

Several employees of the U.S. Army Medical Research Institute of Chemical Defense also received awards ceremony. Wesley W. Holmes won the gold award for Rookie of the Year—Technical, Scientific and Program Support. Susan Schulz received a silver award in the category Outstanding Para-Professional—Technical, Sci-



*Federal Executive Board winners from USAMRICD are, from left to right, Billie Jo Benjamin, Benedict Capacio, Debra Skvorak, Susan Schulz, Wesley Holmes, Victory Shafer, Maj. Scot Estep, Benjamin Casole, Maj. Stephen Dalal, and James Bittner.*

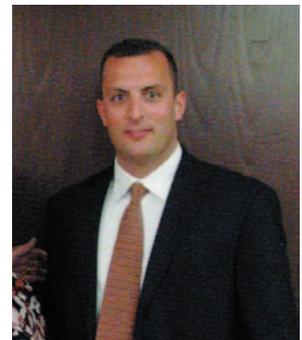
entific and Program Support. Other silver awards were won by finalists from the institute: Staff Sgt. Nicole Sherman for Force Diversity/Equal Employment Opportunity Service, Maj. Stephen Dalal for Heroism, Billie Jo Benjamin for Community Service, and Victory Shafer (retired) for Distinguished Public Service Career. Bronze awards went to Benjamin Casole, Outstanding Supervisor—Grades

13 and above; Maj. Scot Estep, Outstanding Supervisor—Grades 12 and below; Benedict Capacio, Outstanding Professional—Technical, Scientific and Program Support; Thomas Story, Outstanding Professional—Administrative, Management and Specialist; Debra Skvorak, Outstanding Administrative Assistant; and James Bittner, Outstanding Trades and Crafts.

### Researchers recognized

Dr. Harris R. Lieberman, a research psychologist at the U.S. Army Research Institute of Environmental Medicine, received an award from The Technical Cooperation Program for collaborative research that validated the operational effectiveness of caffeine for maintaining cognitive and physical function and marksmanship in both conventional and Special Forces personnel during periods of sustained continuous operations. The findings from this research have generated recommendations for the safe and efficacious use of caffeine by commanders to assist in their planning and execution of mission objectives.

Dr. James McClung, a National Research Council associate at USARIEM, received the Society for Experimental Biology and Medicine Young Investigator Award at the Federation of American Societies for Experimental Biology Meeting in San Diego in early April. McClung submitted his curriculum vitae and an abstract entitled "Differential regulation of downstream targets of mTOR in response to acute heat strain in mouse skeletal muscle" which he also presented at the meeting.



*McClung*



Schuschereba

### Passing

Dr. Steven T. Schuschereba, a scientist who possessed an enormous capacity for work, insatiable curiosity and meticulous attention to detail, died May 10. He began his career with the U.S. Army Medical Department in 1973, working at the Frankford Arsenal in Philadelphia, the Letterman Army Institute of Research in San Francisco and the U.S. Army Medical Research Detachment of the Walter Reed Army Institute of Research at Brooks City-Base, Texas.

Schuschereba received a Bachelor of Science in biological sciences from Cornell University, Ithaca, N.Y., in 1972, a Master of Arts in cell and molecular biology from San Francisco State University in 1981 and a Doctorate of Philosophy in medicine from the United Medical and Dental Schools, Saint Thomas' Hospital, Department of Ophthalmology, University of London in 2001. He obtained additional graduate training at the University of Michigan and Penn State University.

A native of Avoca, N.Y., Schuschereba's work contributed to guidelines for the safe use of laser radiation and characterized the nature and extent of laser-induced eye injury at the cellular and molecular level. His contributions describing the efficacy of steroids and non-steroidal agents in treating the primary and secondary effects of laser-induced trauma contributed to the state of the art of current treatment approaches for laser eye injury. He developed injury classification schemes and models of the retinal injury processes (retinal hole formation and intra-retinal scar formation) that form the basis for cur-

rent and future research.

Among the 150 peer-reviewed manuscripts and abstracts, proceedings papers and government reports that he authored or coauthored included pioneering work on photoreceptor transplantation and characterized the cytoprotective effect of a class of antibiotics against thermal and laser-induced trauma to retinal pigmented epithelial cells.

He excelled at teaching complex, tedious techniques and spent countless hours as a mentor contributing to the training of several graduate students. Schuschereba's pursuit of perfection, as evidenced by the unparalleled quality of the several hundred thousand retinal sections his lab produced, is indicative of his dedicated, tenacious approach to his research. His experience and expertise along with his pleasant demeanor will be sorely missed; however, his accomplishment and ideas will remain at the forefront for some time to come.

His passing was marked by a memorial service at the Brooks Chapel in San Antonio May 25. He is survived by his wife, Alba Briceida Schuschereba, and four brothers, George from Derry, N.H.; Walter from Houston; and Michael and Andrew from Avoca, N.Y.

### Tuttle award winner

Lt. Col. Michael B. Russo of the U.S. Army Aviation Research Laboratory received the 2005 Arnold D. Tuttle Award at Honors Night ceremonies at the 76th Annual Scientific Meeting of the Aerospace Medical Association on May 12 in Kansas City, Mo, for his role as lead author of the article "Visual Neglect: Occurrence and Patterns in Pilots in a Simulated Overnight Flight." The article presented the results of a study that evaluated visual perception during a simulated overnight flight of 12.5 hours to test for visual neglect.

## People in the News



At the presentation of the Tuttle Award are Dr. Melchor Antunano, president of the Aerospace Medical Association, Lt. Col. Mike Russo and Bob Ellis from Wyle Laboratories.

toward the solution of a challenging problem in aerospace medicine and has been published in *Aviation, Space, and Environmental Medicine*. The award is currently sponsored by Wyle Laboratories.

The Aerospace Medical Association is the largest, most-representative professional organization in the fields of aviation, space and environmental medicine. The association has provided its expertise to a multitude of federal and international agencies on issues including aviation and space medical standards, the aging pilot, and physiological stresses of flight.

### Soldiers with Wings

Sgt. Nicole Washington, Spc. Nicholas Kirschten and Spc. Ardicio Galvao from the U.S. Army Medical Research Institute of Chemical Defense are now the proud wearers of hard-earned jump wings. All are recent graduates of Airborne School in Fort Benning, Ga.

Washington was one of six women in her class of 300 to successfully complete the training.

“It was the greatest experience of my life,” said Galvao upon his return to MRICD. “I have always been afraid

Established in memory of Col. Arnold D. Tuttle, the honor is awarded for original research that has made the most significant contribution

of heights, but I had to face my fear and get out there and do it.”

Galvao described the intensive three-week training as both “tiring and exciting.”

Airborne School begins with Ground Week, which prepares soldiers for a parachute jump and safe landing. Physical conditioning is as important during this week as is learning specific airborne skills. These skills are refined during Tower Week in which soldiers begin practicing jumps, first from a 30-foot and then a 250-foot tower. Soldiers must qualify on the swing landing trainer and master the mass exit procedures from the 34-foot tower—part of week two training—as well as pass all physical training requirements, to continue on to week three.

Appropriately, week three is Jump Week. As the name implies, Soldiers test their new skills jumping from planes. To graduate, Soldiers must complete five jumps, one of which must be a night jump.

Jumping out of that plane, according to Galvao was “the best, yet the scariest, feeling. Looking out while I descended to earth was the greatest feeling in the world,” he added. “I can talk about it all the day, but you will never know the excitement and challenge until you go out there and do it yourself.”—Cindy Kronman, U.S. Army Medical Research Institute of Chemical Defense

### German badge

Spc. William H. McGilberry, a biological research technician at the U.S. Army Aeromedical Research Laboratory, Fort Rucker, Ala., received the “Gold” German Armed Forces Badge for Military



McGilberry

Proficiency (Leistungsabzeichen) May 2. Lt. Col. Werner Hellinger, Fort Rucker German Liaison Officer, presented the badge to McGilberry in a ceremony held at the Lyster Army Clinic.

The requirements of the badge are twofold. McGilberry first had to meet or exceed the requirements of the German Sports Badge, which include a 200-meter swim, a long jump, a 100-meter sprint, the shot put, and a 1,000-meter swim. To further qualify for the German Armed Forces Badge for Military Proficiency, McGilberry completed the U.S. Army Combat Life-saver course, received a noncommissioned officer evaluation report stating that he met or exceeded the general standards of efficiency in his military occupational specialty, passed a pistol marksmanship event and completed a 30-kilometer road march.

—Linda Burt, U.S. Army  
Aeromedical Research Laboratory

### Defense awards

For their part in developing a formal quality management system for the Critical Reagents Program, U.S. Army Medical Research Institute of Infectious Diseases scientists were recognized with a 2004 Defense Standardization Program Honorary Award for their team's accomplishments in standardization and interoperability efforts with the American, British, Canadian and Australian Program's Quadripartite Working Group on Nuclear, Biological and Chemical Defense.

The Critical Reagents Program is tasked with producing and fielding high-quality biological detection assays in support of the warfighter. Military services use CRP products to sample, detect, and diagnose disease caused by pathogenic agents.

Army team members also hailed from the Joint Program Executive Office, Chemical and Biological De-

### Fitness class

Soldiers from the U.S. Army Research Institute for Environmental Medicine found a way to beat the long New England winters. A certified instructor at the Longfellow Sports Club motivates Soldiers during a grueling weekly spin class. The class provides an alternate to traditional unit physical training that increases cardiovascular fitness, improves leg strength and increases knee stability.



## People in the News



Along with other researchers, U.S. Army Medical Institute of Infectious Diseases scientists were recognized with a 2004 Defense Standardization Program Honorary Award.

fense; Chemical, Biological Medical Systems; and the Army Materiel Command's Research, Development and Engineering Command, Edgewood Chemical Biological Center.

The team ensured that the United States was well represented in all areas of nuclear, biologic and chemical defense and also created an integrated digital environment for sharing the best ideas from DoD scientists and integrating them into one joint solution.

Standardized processes and virtual teaming save time and money by enabling the CRP to draw support from sites anywhere in the nation. The team included Dr. Peter Emanuel and Mike Mazza, JPEO-CBD; Karen Poffenberger, CBMS; and Drs. Dave Norwood and Mark Wolcott, USAMRIID.— *By Karim Abdian, Army Standardization Manager*

### Published

Scientists from the U.S. Army Medical Research Institute of Chemical Defense contributed several articles to a special issue of the *Journal of Analytical Toxicology*. Volume 28 of the journal, dedicated to the topic "Analytical Methods for Chemical

Warfare Agents," included the following first-author manuscripts from the institute's Analytical Chemistry Team, as well as a manuscript co-authored with collaborators from the TNO Prins Maurits Laboratory in The Netherlands: "Monitoring Sulfur Mustard Exposure by Gas Chromatography-Mass Spectrometry Analysis of Thiodiglycol Cleaved from Blood Proteins," by B.R. Capacio, J.R. Smith, M.T. DeLion, D.R. Anderson, J.S. Graham, G.E. Platoff, and W.D. Korte; "Analysis of the

Enantiomers of VX Using Normal-Phase Chiral Liquid Chromatography with Atmospheric Pressure Chemical Ionization Mass Spectrometry," by J.R. Smith; Gas Chromatographic-Mass Spectrometric Determination of British Anti-Lewisite in Plasma by C.E. Byers, E.R. Holloway, W.D. Korte, J.R. Smith, and B.R. Capacio; and "Procedure for Monitoring Exposure to Sulfur Mustard Based on Modified Edman Degradation of Globin," by TNO scientists D. Noort, A. Fidder, H.P. Benschop, L.P.A. de Jong, and MRICD's J.R. Smith.

### Scientist exchange

Dr. David Baer, U.S. Army Institute of Surgical Research, and Maj. John Scherer, U.S. Army Medical Research Institute of Infectious Diseases, were selected to participate in the 2005 U.S./U.K. Exchange of Early Career Scientists Laboratory Visit Program. They will spend two weeks in the fall touring labs in the United Kingdom. Baer and Scherer were chosen to participate among 17 Army nominees.



Baer

**Business advocate rewarded**

Jerome K. Maultsby, associate director for Small and Disadvantaged Business Utilization for the U.S. Army Medical Research and Materiel Command, received the Small and Disadvantaged Busi-

ness Utilization Award from the Secretary of the Army May 9.

Lt. Gen. Kevin Kiley, U.S. Army Medical Command commander and The Surgeon General of the Army served as Maultsby's sponsor for the ceremony.



*Maultsby*

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## News to Use

**Free antivirus software for home use**

The Navy's Information Assurance Web site is currently offering free antivirus software for service members and authorized civilian personnel to use at home.

The Navy's Information Assurance Center, a division of the Space and Naval Warfare Systems command, developed the program in an attempt to reduce the number of computer virus attacks on government systems.

Military personnel who take work home have been known to return to the office with infected files, providing an opportunity for viruses to attack government computer systems.

The Department of Defense negotiated software licenses with three major software companies—Symantec, McAfee and Trend Micro—including home use for all DoD employees. The software normally costs up to \$50 at retail stores throughout the country.

The software can only be downloaded onto a computer with a “.mil” or “.gov” domain address, although a select group of users with an authorized DoD “PKI” digital certificate can download the software on any computer. After downloading their preferred software, personnel can transfer the installation program to an available form of portable media such as CD, zip disk or thumb drive and take it home.

DoD workers can visit the Infosec

Web site at <https://infosec.navy.mil> for complete instructions that guide users to select the software package that will best fit their needs. Each vendor has provided software for nearly all versions of Microsoft and Apple operating systems, plus programs for rare operating systems and handheld devices.

**Help for researchers**

Need a magazine or journal article in a hurry? Want to view the table of contents from the current Military Medicine issue? Try checking the electronic full text journal database from the Learning Resource Center at the Uniformed Services University of the Health Sciences. USUHS provides the U.S. Army Medical Research and Materiel Command laboratories with a gateway to a selection of the finest information resources available to medical researchers and professionals. The USUHS site includes more than 2000 full text titles from such publishers as Elsevier/Science Direct, Springer, and ASM as well as searchable databases such as Jane's Chem-Bio, Faculty of 1000, and Current Contents. To apply for a USUHS password, complete the registration at <http://www.lrc.usuhs.mil/rcs/rcsinform.html>. For more information, contact Denise Lupp at 301-619-2717 or Denise.Lupp@amedd.army.mil .