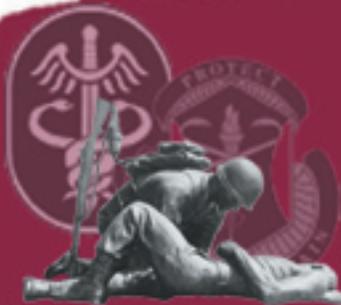


# THE POINT

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



## Inside

## Team in Iraq gets items to right place at right time

Anticipating what materiel the Army's medical professionals need before they deploy is one of the central preoccupations of the U.S. Army Medical Research and Materiel Command. Now the command has a system in place that lets Army medical units tell the command what they need even after they've deployed.

By serving as a medical expert on the Army Materiel Command's Field Assistance in Science and Technology team, in July Maj. Jurandir Dalle Lucca was the first Army Medical Department officer to go into Iraq and find out what equipment or knowledge medical units lacked.

"The opportunity to spend time talking and working with so many dedicated and highly professional men and women on the battlefield has been the most rewarding experience I ever had," he said. "It is a different perspective to see products, such as the chitosan bandage and the new tourniquets, actually saving lives in front of you."

The command had been trying to link up with FAST teams for a while, said Col. Harry Slife of the USAMRMC.

"The way we're responsible for cradle to grave medical materiel, AMC is responsible for cradle to grave logistics for everything except medical," he said. "When they got over there, their mission was to see how things were working, how there could be some materiel solutions to problems that Soldiers were experiencing or doctrinal changes or training or simply modifications to existing materiel."

What the FAST teams found, though, was they were at times being asked questions about medical materiel that they couldn't answer. That's when a call for volunteers went out to the Army Medical Command's officers asking them if they wanted to join



*Maj. Jurandir Dalle Lucca was the first Army Medical Department officer tasked to go into Iraq and find out what equipment or knowledge medical units needed.*

up with the next four FAST teams, typically comprised of an officer, a noncommissioned officer and an engineer.

When Dalle Lucca arrived in theater, he traveled in convoys, in Blackhawks, C-17s and C-130s to give his pitch to 40 units across Iraq—from Baghdad to Tikrit, from Basrah to Mosul—speaking with medical personnel at battalion aid stations, forward surgical teams and combat surgical hospitals.

At the end of his travels, he'd gathered and forwarded 15 projects, 30 reported issues and numerous requests for information from the field.

"Due to the apparent success of our mission, lately I have been receiving several phone calls from all over the theater, including Navy doctors that want to share their experiences and ideas for improvement," he said.

One issue he assisted with was helping patients manage pain during their evacuations from or stays at combat support hospitals. When he brought the pain-management is-

**See "FAST" page 2**

The Point is published quarterly in January, April, July and October. Its contents do not necessarily reflect the official views of the U.S. Government, the Department of Defense or the U.S. Army.

Editorial content is prepared by the U.S. Army Medical Research and Materiel Command Public Affairs Office, 301-619-7549; DSN prefix 343. Deadline for the next issue is June 1.

## Studies help sleepy Soldiers cope

Though it's been studied for about a century, why people need sleep remains a mystery.

"We know we need air, food and water, but unlike those other needs we don't know why we need sleep," said Dr. Thomas Balkin of the Walter Reed Army Institute of Research. "We do know we're a mess without it."

Troops in garrison need it just as much as troops in the field, but because of unpredictable schedules sleep can be elusive for the latter group.

"Due to the mission, you've got a brief period, maybe six to 12 to 18 hours to kind of refit, get some sleep and go back out again," said Staff Sgt. Sean Byard, who deployed to Afghanistan twice and now works at WRAIR. During combat operations, it wasn't unusual for him and his squad to stay away for 24 to 30 hours at a stretch.

Not getting enough sleep can cause problems. First, it affects mood, making sleep-deprived people as cranky as overtired children. Second—and most important during military operations—is its effect on mental performance.

"You tend to process information more slowly," Balkin said. "People do make errors when they're sleepy, but primarily what they do is slow down. In time-critical tasks, like target acquisition, every second counts, every millisecond can count."

Compounding the mental slowdown that occurs when there's a sleep deficit is the fact that sleep-deprived people don't often know they're sleepy.

"People are not good judges of their own capacity to perform—just like drunks are not good judges of their

See "Sleep" page 3

### "FAST," continued

sue to the Medical Research and Materiel Command's attention, a group at the headquarters located a flight-certified pump that lets patients give themselves doses of pain relief medication. Within weeks, 60 pumps were purchased and sent to four combat support hospitals in the theater.

Acting on the issues Dalle Lucca found meant putting the right people from the command at a meeting, Slife said. The group at the headquarters wants to find an expert who will take the issue head on and resolve it.

Issues aren't just about providing a piece of equipment. Dalle Lucca also helped identify problems with educating units new to the theater on how to order medical supplies and training combat lifesavers

to use the correct resuscitation fluids.

"Our role (at headquarters) will be as the quarterback, to hand the ball off," he said. "Once (a concern) is handed off, we have to allow (experts) to run with it."

Because combat support hospitals typically saw 10 patients a month who were suffering from complications of hypothermia during medical evacuations, Dalle Lucca began searching for yet another solution.

"Until now, the policy here was to wrap the patient with body bags made of plastic to help prevent heat loss during MEDEVAC," he said. "We were able to bring important new tools, such as hypothermia prevention kits and temperature sensor catheters, which

are sure to cause a dramatic decrease in complications associated with hypothermia."

As a result of the effort, 4,000 kits were fielded, as well as core temperature monitors, to prevent hypothermia. Slife said that though the command "could do a lot of Monday morning quarterbacking, saying we shoulda, coulda, woulda had something two or three years ago," the important thing is being responsive to the Soldiers' needs.

"I don't care what precipitated the thought process as long as we're thinking about it," he said. "The issue is getting the materiel in the hands of the folks who need it most in short order and having great confidence that what you're providing them is going to meet the need."

**“Sleep,” continued**

capacity to drive,” Balkin said.

Military sleep researchers use lessons gleaned from sleep studies done in the civilian world but must take their work a step further because the two environments don’t provide an apples-to-apples comparison. Unlike shift work, “in the military operational environment, you’re responding to operational exigencies. What the enemy happens to be doing at that time might dictate that you’re going to have to stay awake. You may get to sleep in an hour or 20 hours from now, you don’t know,” Balkin said. “That’s a challenges that we face, to optimize performance sort of on the fly instead of ahead of time.”

One of WRAIR’s research efforts to help perfect performance uses a device called an actigraph. Worn on the wrist like a watch, the actigraph measures motion and records it. From the data it generates, sleep and wakefulness can be scored in a mathematical model. That model, which is still a work in progress, Balkin said, should be able to predict a Soldier’s ability to perform his or her job. It should also be able to tell users if they need a little jolt to stay awake and on task if they can’t fit in a nap.

“We’re applying studies to develop the model to be able to predict how much benefit people are going to get from say 200 milligrams of caffeine, which is about the equivalent of a Vivarin tablet or two cups of coffee,” he said.

Caffeine, Balkin said, does a great job of keeping its users awake and works as well as any stimulant that could be prescribed. It’s also prevalent in the operational environment, Byard said.

“They probably have three or four coffee pots in every TOC (tactical operation center) going at the same time because those are also 24-hour ops,” he said, adding that caffeinated sodas are usually available as well.

Another way caffeine is making its way to the field is through Stay Alert chewing gum. Each piece of the gum contains 100 milligrams of caffeine, which is about the amount found in a six-ounce cup of coffee.

“Because it’s chewed, it delivers caffeine to the body four to five times faster than a liquid or pill because it’s absorbed through tissues in the mouth—not the gut, like in traditional formulations,” said Dr. Gary Kamimori, who works in Balkin’s department.



*Sleep researchers at the Walter Reed Army Institute of Research stress that inadequate sleep can affect a Soldier’s decision-making ability during operations.*

Byard, the noncommissioned officer in charge of the Division of Psychiatry and Neuroscience at WRAIR, volunteered to participate in studies at WRAIR’s sleep suites for the caffeine gum. He and three other Soldiers, not knowing if they received the caffeine gum or a placebo, were tasked to stay awake for 60 hours while frequently performing tasks on handheld computers. It turned out he was chewing the placebo gum, so he wasn’t getting any help except for the motivation of being with other Soldiers.

Kamimori’s staff validated the gum’s physiological effects in single and multiple doses. The gum, he said, doesn’t interfere with the ability to sleep when the opportunity arises.

The cognitive performance model that Balkin’s group is working on may also help commanders and medical professionals zero in on psychological problems.

“With depression and PTSD (post-traumatic stress disorder), you often get changes in sleep patterns that are indicative that someone is depressed or is becoming depressed, Balkin said. “Once everyone is wearing these things (as a proposed sports watch), it’s possible that the data will automatically red flag anyone or any unit that’s having a problem.”

Nothing in this world is certain but death and taxes, Benjamin Franklin once said. If Balkin had his way, sleep would be added to that list.

“It’s generally thought that sleep loss is something you can will yourself through: If you’re tough enough you can perform at optimum levels even though you’re sleepy,” he said. “But nothing replaces sleep. Nothing is as good as sleep for maintaining cognitive performance and mental acuity. No drugs restore it; there’s no substitute.”

## Lab evaluates hearing protection systems

Exposure to high-intensity blast waves, or impulse noise, from weapons systems can cause immediate noise-induced hearing loss, which can be severe and can last from seconds to several days. Unfortunately, hearing may or may not recover to pre-blast levels.



*Capt. David McIlwain, a USAARL audiologist currently deployed to Operation Iraqi Freedom, wears the Communication Enhancement and Protection System, a candidate hearing enhancement system.*

A hearing-impaired warfighter is a hazard to himself, to the other members of his unit and to the mission. Hearing is essential for successful military operations, especially for the dismounted warfighter. With it, the warfighter detects, locates and identifies friendly and opposing forces; conducts face-to-face and wireless communication; and maintains situational awareness on the battlefield.

Yet, the dismounted warfighter does not customarily wear hearing protection devices. Traditional hearing protection devices can actually introduce barriers to effective hearing by reducing the levels of ambient sounds and thus inhibiting sound detection and recognition, situational awareness, communication and stealth.

Nonlinear hearing protection and communication systems are new technologies that can prevent injuries while preserving combat effectiveness. These hearing enhancement and protection systems permit normal hearing in low-ambient noise environments yet provide appropriate protection from high levels of continuous and impulse noise, thus becoming combat multipliers. They allow the warfighter to remain engaged with the opposing

forces and retain situational awareness and the ability to communicate on the battlefield, be it urban, cavernous or open terrain.

The U.S. Army Aeromedical Research Lab is conducting laboratory evaluations and operational trials on four hearing enhancement and protection systems that are compatible with military headgear. The evaluations include noise protection and sound localization tests and a variety of measures of electroacoustic performance, such as output sensitivity, distortion, noise characteristics, frequency response, gain and compression function of talk-through circuitry, capture and release times and battery life.

Field trials of these technologies have been conducted in association with Natick Soldier Center representatives at Fort Benning, Ga. In those trials, Soldiers expressed a preference for the communication enhancement and protection system, which is the “big brother” of the communications earplug that has been used by Army aviators for more than a decade. Operational evaluation of several hearing enhancement systems is slated to begin in the spring.

These evaluations will help the warfighter. Exposure to dangerous levels of combat noise is causing high rates of acute and chronic acoustic injuries. According to the U.S. Army Center for Health Promotion and Preventive Medicine, more than 400,000 veterans received benefits from the Department of Veterans Affairs in 2005 because of hearing disabilities. The cost of hearing loss and tinnitus disabilities for all veterans in 2005 exceeded \$1 billion. Army veterans accounted for 61 percent of the total paid to veterans with major hearing disability.

—Diana Hemphill, USAARL

## Prototype may bring sterilization forward

Sterilizing medical instruments in the field can be tricky—so tricky that it's not done by far-forward surgical teams, the first stops for wounded servicemembers who need surgery fast. Because those teams travel light, they can't accommodate the weight, size or power requirements of current field sterilizers.

"FSTs (forward surgical teams) should have sterilization capability. They're a little bit too light," said Lt. Col. Thomas Winthrop, who for the last three years has been the chief of central materiel service, which does all the sterilization work for the Walter Reed Army Medical Center. "Sterilization is a critical factor in the FSTs because they can't do it, and they can't keep going long. I would think if they were going to add anything they would add a sterilizer."

A new plasma sterilizer in advanced development at the Army Medical Materiel Development Activity, however, may be able to meet those forward surgical teams' needs in coming years.

Plasma, which engineers and physicists call the "fourth state of matter," is a highly ionized gas state, Arnold said, like the gas inside a fluorescent light tube. The new sterilizer uses plasma to energize a hydrogen peroxide vapor and kill microorganisms.

"The company has prototypes running right now that are killing things. The basic science is done," said Mark Arnold, USAMMDA's product manager for the machine being developed by a Minnesota-based company called Phygen.

Winthrop's crew at Walter Reed are expert germ killers. They keep five steam and three older plasma sterilizers working around the clock, sterilizing about 300 instrument sets and 100 clinic items a day.

Of steam, gas, chemicals and plasma, steam is Winthrop's favorite course of sterilization. Having deployed for a year and a half with "Big Bertha" steam sterilizers at the 212th Mobile Army Surgical Hospital, or MASH, he saw their value.

"I always kept a steam sterilizer up for emergency cases. If you treat them nice, (Big Berthas) will run forever," he said.

Arnold said the new technology will supplement steam, not replace it.

"There are some things that you cannot use (the plasma sterilizer) to sterilize," he said. "You can't sterilize water used for wound irrigation in a plasma sterilizer." The manufacturer's testing, however, has shown the device can sterilize gauze, drapes, gowns, masks and other fabrics.

Arnold would, however, like to see the new plasma sterilizer replace the chemical glutaraldehyde that's used in FSTs. "The interesting thing about (glutaraldehyde) is microbiologists use the exact material to glue cells on to slides—and that's why instruments get grungy when you clean with glutaraldehyde, because you're gluing protein onto the instruments," he said. "They get sterilized; they don't get clean. They're icky."

The new sterilizer has other benefits that make it useful for forward surgical teams as well as bricks-and-mortar medical facilities. It takes from 20 to 58 minutes to sterilize whatever is in its chamber, and because it operates at low temperature,



*"Big Bertha" steam sterilizers have been around since the latter part of the Vietnam War and are very low tech, but they can't be used at forward surgical teams because they're too heavy. A new plasma sterilizer is being developed for FSTs.*

**See "Plasma" page 6**

## Research proceeds when researchers deploy

Suggesting that troops use effective safety measures while burning trash is just one example of contributions researchers have made while in the Iraqi theater of operations.

“With a war ongoing, we need to be able to provide fast feedback



*Col. Lee Cancio, a trauma surgeon, deployed to the 86th Combat Support Hospital in Baghdad in April 2005. Also a researcher, Cancio is currently analyzing data he collected for research protocols that were approved during his deployment.*

for troops in the field as well as to people making decisions about research priorities,” said Col. Lee Cancio, a trauma surgeon with the U.S. Army Institute of Surgical Research who deployed to the 86th Combat Support Hospital in Baghdad in April 2005.

Researchers at the ISR, which also runs the Army

Burn Center at Brooke Army Medical Center, were able to provide quick, relevant advice to the field because of the types of burns they were seeing with their patients. For example, they told the Marine Corps that their warfighters needed to wear fireproof gloves in case they came across an improvised explosive device.

Studies that take place while a conflict is ongoing also tell researchers what their priorities should be, Cancio said. Take tourniquets, for example. During the Vietnam War researchers found that the number-one cause of preventable battlefield death was hemorrhagic shock. Based on that information, they recommended that today’s warfighters receive improved tourniquets.

“Now we’re still seeing patients who are dying of hemorrhagic shock from penetrating torso injuries that would not respond to a tourniquet, so that’s

**See “Research” page 7**

### “Plasma,” continued

users don’t have to wait for instruments to cool before they can be used.

As for environmental concerns, Arnold said the new sterilizer won’t present any. The hydrogen peroxide vapor breaks down into water vapor and oxygen, and when the electricity is turned off, the plasma turns back into air.

The sterilizer’s weight will depend on how large it is, but it will be “substantially lighter” than conventional ones, he said, because it won’t need high-pressure boilers and pressure chambers. The technology is also scalable, so it can have

a very small or very large diameter.

“We have some 24-inch diameter sterilizers in the field right now, and that would probably be the one size sterilizer that we’d build,” Arnold said.

Power-wise, the new sterilizer uses one-sixth of the wattage that steam sterilizers currently use. These savings may be the reason a forward surgical team may one day be able to have sterilization capability.

“The (steam) sterilizers right now use 9,000 watts of electricity each, and these will be down to 1,500 watts apiece. That’s a big savings,” Arnold said. “You

maybe don’t have to bring along as many generators. You don’t burn as much fuel.”

Phygen was aided by a 2005 Congressional appropriation of \$1.4 million and expects to have a preproduction sample of the new sterilizer within the next two years.

Arnold said the Army will help the company work through some of the military-unique requirements. “Most manufacturers have no idea how bad the environment is out there,” he said, adding that he’d like to see the sterilizer be made rugged at its onset rather than trying to ruggedized it later.

**“Research,” continued**

an example of where our research priorities should be. They should be oriented toward those particular types of injuries and treating shock from those injuries because we don’t have a good product for that,” Cancio said.

Researchers see a real need for gathering data in theater vice waiting for the information to migrate into databases in the States.

“There are a number of data sources that would have been irretrievably lost unless there were investigators who were actually deployed, looking out for preserving the data for later review,” Cancio said.

Doing research in a combat theater isn’t a novel idea; in fact, it’s been done since World War I, the colonel said. What has changed since those research studies were conducted, however, is the regulatory environment overseeing research. Before any research study can start, its plan has to be reviewed at various levels to make sure the plan is a good one. In the States, the final okay comes from a body called an institutional review board.

Lt. Col. Jennifer Thompson of the Walter Reed Army Institute of Research’s institutional review board deployed to Iraq, namely to the 44th Medical Command, from June to October 2005 to set up a process for researchers to have their protocols reviewed. Cancio, as well as a few other researchers at the 86th Combat Support Hospital, had their draft protocols ready for her when she landed.

For the most part, the types of studies researchers were hoping to undertake were retrospective studies, meaning researchers would look at data gathered from patient medical records or other clinical data that’s available in a medical treatment facility to identify injury trends and outcomes.

Thompson’s first concern was protecting Soldiers.

“There are a lot of lessons to be learned from this experience, but we definitely don’t want to put our Soldiers, who are already in harm’s way by virtue of being in the combat environment, at additional risk,” she said.

Thompson’s first triumph came July 20 when she received a signed Department of Defense “assurance,” which is a legal com-

mitment that promises all research involving human subjects will comply with all federal and Defense Department regulations. Brig. Gen. Elder Granger signed the assurance and was given this authority based on an agreement between the Army surgeon general and the commander of the Multi-National Corps-Iraq. The first ever for a combat environment, the assurance let research in theater commence.

Today, research proposals are reviewed by the chain of command in Iraq and ultimately end up at the Brooke Army Medical Center’s institutional review board. The committee there reviews protocols for scientific merit and human use concerns to ensure the rights, such as privacy, and wellbeing of patients are protected.

“Because most of this work was retrospective, it’s very low risk for any of the participants,” Thompson said. “It’s relatively easy to employ several provisions to reduce the risk of loss of confidentiality, which is the main risk associated with patient data and medical record review. We had a couple proposals that would have required recruiting participants, but by the time I left none of them had been approved.”

Protocols initiated in theater take a few months to be reviewed, which is on par with reviews that begin in the States, Cancio said.

“Good research, even in the States, has to be done methodically and have multiple layers of approvals,” he said.

Because he was kept so busy in Iraq as a surgeon, the colonel never found the time to analyze all the data he collected. Now that he’s back at the ISR, he and colleagues have begun looking at injury patterns from IEDs, burns, eye injuries and the effect of massive blood transfusions. His results, he hopes, will find more answers for the field and help set more research priorities.

**“There are a number of data sources that would have been irretrievably lost unless there were investigators who were actually deployed, looking out for preserving the data for later review.”**

**—Col. Lee Cancio  
Army Institute of  
Surgical Research**

## Ovarian cancer program seeks answers

When she was 25 years old, Nyrvah Richard was in so much pain she was unable to make it out of a New York City subway train. After repeated visits to her internist when Ann Mason was 49, her doctor told her to go on a diet and exercise more to lose the girth she'd suddenly gained.

Both women had ovarian cancer. None of their doctors knew it.

Ovarian cancer “is very, very difficult to detect. There’s no screening for it. There’s no ‘ovarian gram,’” said Dr. Patricia Modrow of the Department of Defense Ovarian Cancer Research Program.

Both women had the bloating and weight gain that are symptoms of the disease. But because those symptoms of ovarian cancer—along with fatigue; pelvic or abdominal pain; gastrointestinal upsets such as gas, nausea and indigestion; and frequent urination—are present in so many other diseases that a diagnosis of ovarian cancer is often overlooked. Sadly, the disease is extremely lethal when detected later rather than sooner. According to the American Cancer Society Web site, more than 80 percent of women diagnosed with ovarian cancer are in late stage (stage III or IV). Of those, just 19 percent will live five or more years after the cancer is found.

Despite both being diagnosed in stage III, both Richard and Mason beat the odds. This year both will mark 10 years of surviving ovarian cancer. Now advocates for increased awareness and research funding, the women devote countless hours trying to help women defy the American Cancer Society’s stats that predict in 2006 that 20,180 women will be diagnosed with ovarian cancer while 15,310 women will die of it.

One way Richard and Mason have

made a difference is by participating in the Defense Department’s Ovarian Cancer Research Program. Since 1997, Congress has appropriated \$101.7 million in research funding to help the program’s researchers, physicians and advocates achieve their vision: eliminating ovarian cancer.

“The program is supporting research in ovarian cancer so patients will be able to manage the disease through targeted treatment, live longer and have a better quality of life,” Modrow said. “We have to try to do something that is some day achievable, and the scientists and the consumers believe it is.”

After seeing breast cancer advocates successfully lobby Congress for more research funding in 1992, ovarian cancer advocates charged Capitol Hill and received \$7.5 million in 1997 for the creation of the Department of Defense Ovarian Cancer Research Program.

In the DoD program, ovarian cancer survivors, alongside scientists and medical professionals, set the program’s goals, review research proposals, vote on which proposals will receive funding, and, most importantly, bring urgency to the need for answers about the disease.

For Richard, having a seat at the review process table was expected. After all, her group, Share: Self-Help for Women with Breast or Ovarian Cancer, was one of the original advocacy organizations that teamed up under the umbrella of the Ovarian Cancer National Alliance to lobby for research funding.

“I think the strongest point with the DoD program is that from its inception it has put the survivor on equal

---

**See “Ovarian cancer” page 9**

**“Ovarian cancer,” continued**

footing with the other members of the panel. The prevalent attitude toward survivors in the medical community had been, ‘We know what’s good for you.’ Even active participation in your own care was not something that was encouraged. We’re not talking 50 years ago. It’s been 10 years for me,” she said. “I’ve seen the changes in the role of advocacy not only in finding funding for research but in changing the attitude within the medical establishment as to the role of the patient in her own care.”

Every year the program’s participants decide on the investment strategy for the money it receives. For fiscal year 2006, the program received \$10 million. The program tends to fund research proposals that will have the greatest impact on the disease while ensuring research isn’t being duplicated elsewhere.

“Our program is very flexible in terms of funding strategy so that based on new information our program can change year to year to meet the needs of the scientific and consumer community,” said Dr. Naba Bora, the grants manager for the program. “It’s a researcher and consumer-driven program. It’s about what the patients want and what they feel would be helpful.”

Now in its ninth year, the program has made steady progress in understanding the disease, Modrow said.

“The knowledge base for ovarian cancer is immature, to say the least. When this program began, it was literally in its infancy,” she said. “We certainly have more information about ovarian cancer than we’ve had in years, but there is much work to be done.”

Throughout its existence the program has made a difference to researchers as well as advocates, Mason said.

“The DoD program is helping change the tone and timbre of the conversations that we have. The research community understands why they’re doing what they do. When they want to give up, they remember the faces around the table and they say, ‘If she’s not giving up, I can’t give up,’” she said. “It’s a real life-changing experience where consumers come away from these sessions with a whole new appreciation of the hours researchers spend and the talent being used so our sisters and our daughters will have better lives.”

**Ovarian cancer**

**About one fourth of ovarian cancers are found at an early stage. Finding the cancer early improves the chances that it can be treated successfully. Unfortunately, there is no reliable test for finding this cancer early.**

**Early cancers of the ovaries tend to cause symptoms that are somewhat vague. But keep in mind that these problems are often caused by something other than cancer. Symptoms might include:**

- ▶ swelling of the abdomen from a buildup of fluid
- ▶ unusual vaginal bleeding
- ▶ pelvic pressure
- ▶ back or leg pain
- ▶ problems such as frequent gas, bloating, long-term stomach pain, constipation or indigestion

**A study published in the Journal of the American Medical Association in 2004 showed that 9 out of 10 women had these with symptoms in early stages. “You don’t need all symptoms; you may just have one,” said Ann Mason of the Ovarian and Gynecologic Cancer Coalition of Greater Washington.**

**Persistence and frequency are key when it comes to symptoms, Mason added.**

**“The difference between these symptoms of ovarian cancer and normal life symptoms are the degree with which the symptoms persist and the frequency of recurrence,” she said. “For example bloating and abdominal pressure is constant; it doesn’t come and go like a Mexican meal.”**

**By the time ovarian cancer is thought of as a possible cause of these symptoms, it may already have spread beyond the ovaries. Also, some types of ovarian cancer can quickly spread to the surface of nearby organs. But prompt attention to symptoms can improve the odds of finding the cancer early and treating it successfully. If you have any of the symptoms above, report them to your doctor right away**

**—Some information taken from the American Cancer Society Web site**

## Device may find place in medics' toolbox

Military researchers are looking for technology—specifically microimpulse radar—to give battlefield medics better triage power than an old medical standard.

“Blood pressure is a really terrible measure of fluid loss because your body wants to keep blood pressure level,” said Col. Bob Vandre, director of the Army’s combat casualty care research program.



*Weighing about as much as a pack of cigarettes, the microimpulse radar device can currently sense heart and lung movement when it's put on top of a patient, even if the patient is wearing body armor. Researchers hope it may one day also give heart and respiration rates, detect collapsed lungs and provide a better status measure than blood pressure.*

“As you start losing blood, your arterioles in your periphery start collapsing so the blood doesn’t go to your limbs but sends the blood to your brain and your central organs. But that keeps your blood pressure up, and it’ll keep it up until it can’t do it anymore—then you get this big drop.”

And when the drop comes, it may

be too late.

Though blood pressure readings have value in a normal medical setting, Dr. Vic Convertino, a research physiologist with the U.S. Army Institute of Surgical Research, said a medic can’t necessarily rely on it as a decision-making tool for who to treat first.

“Traditional medical monitors measure blood pressure and pulse oximetry. By the time (blood pressure and oxygen in the blood) change, you may not have time really to help the

casualty,” he said. “We’re looking at what we can measure ... that could give medics early information that would tell them ‘This is the guy who is in the most severe situation.’”

Vandre and Convertino contend that the major challenge for advancing the combat medic’s capabilities for making life-saving diagnosis and treatments of casualties is to measure physiological responses that change earlier than the more traditional vital signs such as blood pressure.

Microimpulse radar may one day give medics better decision-making tools. The low-powered microimpulse radar technology can be inserted into a personal data assistant, or PDA.

Weighing about as much as a pack of cigarettes, the radar can currently sense heart and lung movement—essentially life—when it’s put on top of a patient, even if the patient is wearing body armor. Because that’s all it currently does, it offers little information for medics, unless a patient is wearing chemical protective gear and shouldn’t be touched or is in a high-vibration environment like a helicopter or aircraft.

“If its main advantage is being able to tell if someone is alive in MOPP (protective) gear, that’s such a niche market, that in my mind, there’s some doubt as to whether it would ever be fielded,” Vandre said.

If researchers’ endeavors are successful that niche market will expand—so much so that every medic on a battlefield will want microimpulse radar to get heart and respiration rates, to detect collapsed lungs and to have a better status measure than blood pressure: cardiac output.

“Cardiac output is how much blood your heart is pumping at one time,

**See “Radar” page 11**

## Institute abounds in women scientists

“My parents always joked that this is what happens when you don’t let your kids play with guns,” said Capt. Mara Kreishman-Deitrick of the Division of Experimental Therapeutics at the Walter Reed Army Institute of Research.

She, along with seven other Army female scientists wear Army uniforms while putting their numerous academic degrees to use daily in finding new drugs to fight malaria and other infectious diseases.

The division comprised of more than 75 scientists is striking because of the number of women officers who hold doctorates and serve as primary investigators in research studies. As toxicologists, medicinal chemists, microbiologists and pharmacologists, they provide a stable nucleus to ensure the division’s program continues.

At December’s gathering for the American Society for Tropical Medicine and Hygiene in Washington, many of the women’s names were on the program, as either speakers or

poster presenters on malaria work. Exploring daunting subjects such as parasite gene expression during treatment with antimalarials in vitro, cloning, expression, and in vitro analysis of dihydroorotase from *Plasmodium falciparum* and the emerging resistance to malaria in West Africa, the women have shown they are more than competent in the lab.

Gender, however, does not influence leaders’ decisions on where to place promising new scientists at the 112-year-old institute.



*Maj. Regina Davey explains her research to an attendee at the American Society for Tropical Medicine and Hygiene conference held in Washington in December. Davey works with six other women in the Division of Experimental Therapeutics at the Walter Reed Army Institute of Research.*

**See “Women” page 12**

### “Radar,” continued

and that’s a really good indicator on how low you are on fluids. As the amount of blood drops, the output goes down too,” Vandre said. “It’s a much better (earlier) indicator (than blood pressure) of how much blood you’ve lost.”

Two small businesses are working on the cardiac output and collapsed lung detection projects, and Convertino said he’s optimistic about having them as add-ons to the PDAs that medics already have available for the Battlefield Medical Information System-Tactical.

“Wouldn’t it be neat if a medic only has to carry in his hand one tool, that PDA, that has so many capabilities,” he pondered.

Looking even further out across the technology horizon, the Air Force, Convertino said, is looking at the technology’s ability to detect motion from up to 100 feet away and about 20 feet through rubble.

“If they could develop the technology in a way that could be very specific to a medic pointing it at a casualty to see if they’re alive or dead, guess

what that means? He doesn’t have to go out and expose himself to harm,” he said.

Convertino has researched microimpulse radar capability for medicine for two years (though the technology has been around much longer than that) and doesn’t expect to see it fielded with all its features for at least five years.

“I would like it out there as soon as possible, but I would like it out there no sooner than we have the capabilities that are really going to help the medic,” he said.

## People in the News



*Newly promoted Maj. Gen. Eric B. Schoomaker watches as his father, retired Col. Brad Schoomaker, pins a second star on his beret.*

### General receives second star

Maj. Gen. Eric B. Schoomaker received his second star in front of about 120 family, friends and colleagues during a private ceremony held Jan. 27 at the U.S. Army Medical Research Institute of Infectious Diseases. The general's brother, Gen. Peter J. Schoomaker, the U.S. Army Chief of Staff, presided over the ceremony.

"Long service with many Soldiers and colleagues has made me respectful of the power of ceremonies such as this. They are important not because they bring

attention to an individual, but because they do just the opposite," Maj. Gen. Schoomaker said to the audience just after receiving his new rank. "They rightfully acknowledge the place of so many others in what appears to be the accomplishment of one."

Thanking all of the attendees representing an "unbroken chain of support and encouragement" that he received throughout his career, he said a site he recently visited in Thailand best represents the roles others played in his career. From afar he said the Temple of Dawn looks like a "shimmering spire" but when it's viewed up close, visitors can see it's made up

### "Women," continued

"We are really brought into the group in terms of where we fit into the program," said Maj. Karen Kopydlowski, who has been in the Experimental Therapeutics Division for more than four years and serves as a mentor for many new officers in the division.

The research and development mission within the Experimental Therapeutics Division is product driven, with an emphasis on drug development. Success is often a long and complex process and is the result of a stable program with many scientists focused on protecting American Soldiers. Malaria, a primary focus in the division, was the leading disability in Vietnam in the 1960s and 1970s and Somalia in 1993.

"It's the perfect marriage of science and service," Kopydlowski said, adding that the chance to conduct research that directly impacts U.S. troops as well as people across the world made an enormous impact on

her decision to make the Army her career.

Once an officer joins the division, she or he quickly becomes skilled in cutting-edge research, like microarray technology and physiochemical modeling, with a goal of getting products ready to transition so they can enter the Food and Drug Administration's approval process. This often necessitates collaborations with scientists in various disciplines as well as regulators across numerous government agencies or traveling to Australia, Thailand, Jakarta, Peru or Egypt to gain experience in the clinical and field study of malaria.

"The Army has exceeded my expectations and has provided wonderful opportunities while advancing my leadership and scientific abilities," said Maj. Regina Davey.

Because developing new drugs is expensive, the division wants to ensure that only the most promising are pursued. The division's multi-disciplin-

ary approach to drug discovery and design requires a cadre of clinicians and scientists similar to that of the private pharmaceutical sector.

Kopydlowski uses microarray technology to identify genes and pathways that are affected by current antimalarials or new candidate compounds to select new parasite targets for drug intervention. In her work, Capt. Kirsten Smith directs experiments to see how the body processes each drug candidate and whether or not it reaches its intended target. Capt. Jeanne Geyer tries to identify possible antimalarial compounds at the very beginning of the drug discovery process and determine on the molecular level why some malaria drugs just stop working.

"I always knew I wanted to be a scientist, but fulfilling this goal while in uniform has been much more rewarding than I ever could have imagined," she said.

## People in the News

of porcelain plates and pots that were donated from the ruling class to complete the shrine.

“Each of you has taken time from your own careers and lives to break off a piece of your own porcelain and apply it to my life,” he said. “I am a monument to your recognition of the potential in others.”

During his military career, Maj. Gen. Schoomaker has worked as a researcher, clinician, medical consultant, hospital commander, and regional medical commander.

“He’s done a lot of good things that make an older brother and chief proud,” Gen. Peter Schoomaker said, after giving his brother some good-natured ribbing. “This (promotion) is a real accomplishment, and I’m very proud to be part of this.”

### **Dixon vows visibility, support to units**

When she was 18 and living in the Caribbean, Command Sgt. Maj. Althea Green Dixon knew one thing: she wanted to travel the globe. During her 28-year Army career, she’s seen a lot of it, and her new job as command sergeant major of the U.S. Army Medical Research and Materiel Command will bring her many more opportunities to snack on airline peanuts.

“I want to be visible to the Soldiers and civilians of this command,” she said in an interview Feb. 14. “I work for the Soldiers, civilians, contractors, officers of the MRMC. They need to know who I am, they need to know what I stand for and they need to know how I can support them because that’s why I’m here.”

To learn about the command’s missions and its people, Dixon has traveled to 10 of the command’s units: two in Germany, three in Texas, one in Thailand and four at Detrick. Her goal is to visit each unit at least once by July.

Before being selected to come to Fort Detrick, Dixon was Maj. Gen.

Eric Schoomaker’s command sergeant major at the Southeast Regional Medical Command at Fort Gordon, Ga. At his promotion ceremony to major general Jan. 27, Schoomaker said Soldiers like Dixon and others “represent a deep broad and unbroken formation of great Soldiers and NCOs who’ve taught me what Soldiering and service is about.”

Though she moved to Maryland in mid-December, her two sons remain in Georgia, where their four years there was the longest tour of Dixon’s career. Both are in their sophomore years at school—one at a university; the other a high school—and the youngest is living with his father because Dixon didn’t want to interrupt his school year with a move.

“It’s tough to be a mom and a Soldier,” she said.

Dixon’s passion for her “first job” is evident when she speaks about being the senior enlisted adviser to the command.

“I’m not going to become a researcher while I’m here at MRMC, but I do know Soldiering. It is a little more difficult in this environment to remain focused on that, but we have to,” she said. “The job of a noncommissioned officer is the same: lead by example and enforce standards. Those are two basic responsibilities of noncommissioned officers that don’t change, and that’s what I’ll continue to stress.”

Her views on leadership were shaped at her first duty station as a medic at Fort Devens, Mass. A leader in her chain of command thought Dixon was a “sharp lookin’ little Soldier” and told Dixon she would be appearing in a Soldier of the Year board for the post, Dixon said.



*Command Sgt. Maj. Althea Green Dixon uncases the two-star flag at Maj. Gen. Eric Schoomaker's promotion ceremony Jan. 27.*



## People in the News

“I had no idea what that meant. Nobody helped me prepare. I didn’t ask because I didn’t know what to ask or what a board was,” she said. “I went up there and fell on my face.”

She can laugh about it now, but after that episode Dixon said she took to it heart that leaders are supposed to train, coach and mentor their Soldiers.

“Had the leaders been more involved in helping me prepare and helping set me up for success, there would have been a different outcome,” she said. “I certainly would have been better prepared and learned a thing or two.”

Dixon’s entire career has prepared her for her newest position, she said. From working in field units, hospitals, brigades, divisions and more “every job that I have had has built on the one that I had previously,” she said.

She admits that every job has a learning curve, and the Medical Research and Materiel Command is no different.

“Until very recently I thought that MRMC was focused only on medical research. I didn’t know that we did health facilities, information technology, surgical research,” Dixon said. “It spans a lot more than I thought.”

She said she’s impressed with everything she’s seen so far.

“It’s a great command with great people who are very enthusiastic about what they do,” Dixon said. “We’re doing a whole lot of good for the Army and the nation and I’m just proud to be a part of it.”

### **WRAIR leadership changes**

Command of the Walter Reed Army Institute of Research changed hands Jan. 10 during a ceremony held in the institute’s conference room.

Col. Kenneth A. Bertram, formerly of the Congressionally Directed Medical Research Program, took command from Col. Charles E. McQueen, whose next job is as chief of Clinical Investigation at Walter Reed Army Medical Center.

After taking command, Bertram reflected on a postcard he came across during his travels that said: “Life is not about the breaths we take; it’s about the moments that take our breath away.”

“I’m having one of those moments right now,”

he said, adding that commanding the institute was the “opportunity of a lifetime.”

Then-Brig. Gen. Eric Schoomaker, who worked with Bertram at Madigan Army Medical Center at Fort Lewis, Wash., reflected on his time at WRAIR, when it was housed at Building 40 on the Walter Reed campus.

“I can’t return to WRAIR without getting a kind of lump in my throat for the grand place and the wonderful, talented people who make up this institute,” he said.

Thanking his family, colleagues and staff who supported him during his tenure as its commander, McQueen said he was much like the conductor of an orchestra who gets to take a bow at the end of a performance though he plays no instrument.

“Being commander of WRAIR is like that: somebody else does the heavy lifting, and I got to take the bow so many, many times. So this is my time to say thanks to you,” he said. “Keep doing what you have been doing.”



*Col. Kenneth A. Bertram took command of the Walter Reed Army Institute of Research changed hands Jan. 10.*

## People in the News

**MRICD gets new commander**

The U.S. Army Medical Research Institute of Chemical Defense began 2006 by saying farewell to Col. Gennady E. Platoff and welcoming Col. Brian J. Lukey. The change of command ceremony, presided over by then-Brig. Gen. Eric Schoomaker, commander of the U.S. Army Medical Research and Materiel Command, took place Jan. 5 at the National Guard Armory in the Edgewood Area of Aberdeen Proving Ground.



*Incoming commander of the U.S. Army Medical Research Institute of Chemical Defense Col. Brian Lukey accepts the unit flag from then-Brig. Gen. Eric Schoomaker. (Photo by Stephanie Froberg)*

Among the many distinguished guests attending the ceremony were five former MRICD commanders: retired Brig. Gen. Michael Dunn, retired Col. Ernest Takafuji, retired Col. Gary Hurst, retired Col. James Little and Col. James Romano, currently the deputy

commander of MRMC.

In his remarks, Schoomaker said the development of effective countermeasures is the best deterrent for the use of chemical warfare agents, rendering them “ineffective, cumbersome and self-destructive.”

Schoomaker called Lukey “the perfect replacement” for Platoff.

“A pharmacologist and toxicologist, he has worked and trained at every level of Army Medicine, the DoD, VA and Congress on issues related to toxicology and drugs,” said Schoomaker.

Lukey summed up the moment in one word: wow.

“I am honored, humbled, and grate-

ful,” he said. “MRICD was my first assignment. I intended to do one tour for my country and then start my scientific career, but I was so impressed with the quality of scientists here, with the importance of the MRICD mission, that I obviously made the military my career. There is no other unit I would rather command.”

Lukey assumed command after serving as the research area director for Military Operational Medicine, MRMC, Fort Detrick, Md., since 2003.

Lukey is joined by a new deputy commander, Col. Timothy Adams, who reported to the MRICD in early December. His most recent assignment began in August 2004 with the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, where he was chief of the Integrated Toxicology Division. Adams also participated in hurricane relief efforts in Mississippi and Louisiana as the Joint Task Force Katrina staff veterinarian.

Platoff retired Jan. 31 after 30 years of service.

“Col. Genn Platoff has been one of the most stalwart combatants in this long struggle against chemical weapons,” Schoomaker said. “His long and distinguished career ... is one tailored to command this laboratory, which he has done magnificently for the past two and a half years.”

In his farewell remarks, Platoff lauded the staff at MRICD.

“I do not intend to tell you that I am responsible for the success of this outstanding laboratory,” Platoff said. “The success of ICD is the direct result of the people who work here.”

## People in the News

**Command has two new executives**

The U.S. Army Medical Research and Materiel Command's Bill Howell, principal assistant for acquisition, and Dr. Frazier Glenn, principal assistant for research and technology, entered the Senior Executive Service in October and November, respectively, in ceremonies held at Fort Detrick, Md.



*Dr. Frazier Glenn, left, principal assistant for research and technology and Bill Howell, principal assistant for acquisition, entered the Senior Executive Service in late 2005.*

According to the Office of Personnel Management Web site, members of the SES serve in key positions just below top presidential appointees.

They operate and oversee nearly every government activity in approximately 75 federal agencies.

Establishing the two SES positions divides the USAMRMC's broad spectrum of medical materiel responsibility roughly into halves. Glenn now takes responsibility for science and technology activities, including basic laboratory research and early development of new products. Howell's acquisition responsibilities include advanced development and initial procurement of new products from the command.

At induction ceremonies for each new SES, then-Brig. Gen. Eric Schoomaker, commanding general of USAMRMC, compared the two new slots to assistant division commanders in the combat arms world. He said that the high volume and diversity of demands on the headquarters required creating the two positions. He added that both Howell and Glenn were very well qualified because of

their accomplishment in their respective fields.

Howell, a Georgia native raised in Virginia, is a second-generation SES, following in his father's footsteps. A former Army ordnance special weapons officer, he worked in logistics during tours in Germany and at the Walter Reed Army Institute of Research. A position with the Project Management Office for Deployable Medical Systems at the Office of the Surgeon General began a series of assignments that culminated in his assignment as the project manager and started his career in the field of acquisition management. Howell served with the U.S. Army Medical Materiel Agency at Fort Detrick before moving to the USAMRMC headquarters. He held several positions in acquisition oversight before taking on his current position with the command.

"I am obviously most honored with my selection to Senior Executive Service, but with this appointment come significant challenges in providing medical products to our warfighters in a time of dwindling resources, commercial market restructuring and increased FDA scrutiny," Howell said.

Howell outlined three priorities. First, he wants to push for a greater outreach with industrial and other federal agency partners to leverage each other's capabilities to build a relevant and financially stable pipeline of products. Second, he wants to continue and mature the command's best practices development, emphasizing teamwork, risk management and decision metrics. Lastly, he said he plans to "nurture and shepherd" the development of a professional medical acquisition workforce that is "honed to the needs of our commodity with its unique market and regulatory forces."

Before taking on his newest position, Glenn, a retired Army colonel

## People in the News

also from Georgia, served as the command's technical director while on an intergovernmental personnel act assignment from Georgetown University Medical School. Before retiring from active duty in 2004, Glenn served 30 years in assignments at every level of military biomedical research and development, from investigator to senior administrator at various research laboratories in multiple commands and at the Pentagon.

"The MRMC is an amazing organization filled with brilliant and dedicated people," Glenn said. "It continues a proud history of military-led medical innovation. USAMRMC has a proud record of accomplishment, especially considering its size. However, it is not size in numbers of people or funding that makes this a great organization, but the depth of intellectual capital, our people.

Glenn said he will focus on the command's people, ensuring they can continue their lifesaving work.

"My major challenge is to support their efforts and sustain the culture of excellence and history of accomplishment that are so important to the health of America, not just its warfighters," he said.

One factor that complicates this support is the Department of Defense's downsizing in numbers and funding for its support base.

"Military research and development is especially targeted," Glenn said. "However, as a former Chief of Staff of the Army General (Gordon) Sullivan once said, 'Smaller is not better, better is better.' Given the stakes, better is what we must become. I look forward to the challenge."

## Tech transfer director receives award

Dr. Paul Mele, director of the Office of Research and Technology Transfer Applications at Fort Detrick was recently honored at a Department of Defense meeting in Santa Fe, N.M., and received the DoD George Linsteadt Technology Transfer Achievement Award.



*Dr. Paul Mele received the DoD George Linsteadt Technology Transfer Achievement Award.*

The award recognizes a technology transfer professional who has notably contributed and put forth extraordinary efforts to transfer technology developed in the federal laboratories from and to partners in the public and private sectors.

Since Mele's arrival annual royalties from licensing have gone from \$50,000 in 1999 to \$550,000 in 2005. Active cooperative and research agreements, which come in through the laboratory ORTAs, nearly doubled from 309 to 567 during the same time period, and CRADA funding from companies nearly quadrupled from \$2.3 million to \$8.5 million.

Mele has also focused on increasing the output of technology transfer by initiating industry outreach by way of exhibiting and attending about a dozen tradeshow and showcases in the past few years with other ORTA employees.

"This is really a group award," said Mele. "If you give your staff responsibility and authority, you will be rewarded."

Recent commercialization successes include an anthrax vaccine, topical skin protectants, anti-infective therapeutics, absorbable surgical glue, a water bio-monitor, a leishmania diagnostic kit, a revolutionary new way to prolong the storage of blood, and a small portable handheld device that assists medics in caring for Soldiers.

—Sara Baragona, Office of Research and Technology Applications

## People in the News



Janet B. Aquino received the 2005 Secretary of the Army Editor of the Year Award.

### Editing award

Janet B. Aquino of the U.S. Army Medical Information Technology Center in Fort Sam Houston, Texas, received the 2005 Secretary of the Army Editor of the Year Award. She received the award for serving as command editor for administrative publications for the U.S. Army Medical Command/Office of The Surgeon General One Staff. As the MEDCOM editor Aquino edited, revised, formatted and published more than 45 MEDCOM or MEDCOM/OTSG administrative publications from April 2004 through April 2005. She was recognized in a ceremony March 29 at the Pentagon.

—Photo and story by Martha Louise Reyna, USAMITC



Recipients of the Presidential Rank Award gather after receiving their certificates signed by President Bush. A very small percentage of career government employees are chosen annually to receive the distinguished or meritorious award. Dr. Bhupendra P. Doctor is at the far right. (Photo by John Reese)

### Presidential award

Dr. Bhupendra P. Doctor of the Walter Reed Army Institute of Research received the silver meritorious Presidential Rank Award in a ceremony at the Pentagon Jan. 20.

Secretary of the Army Francis J. Harvey presented pins and framed

certificates signed by President Bush to Doctor and 21 other awardees, a number of whom provided key services following 9-11.

“An important component of business transformation is establishing a performance culture in which a concise set of measurable performance objectives are established by all senior civilians who, in turn, are rewarded when their objectives are achieved,” Harvey said. “The Presidential Rank Awards are an important element of that reward system.”

Award winners are chosen by the president after being nominated and evaluated for their leadership in producing results or professional, technical or scientific achievement. It is considered the most prestigious recognition afforded to career professionals.

Doctor, the director of the Biochemistry Division at WRAIR, has worked on solving problems confronting the nation’s medical response to the use of chemical warfare nerve agents. He helped develop bioscavenger antidotes, which may result in saving countless Soldier and civilian lives and render the use of chemical warfare agents obsolete as weapons of mass destruction.

Only 5 percent of the recipients receive the silver meritorious award. The award comes with a lump-sum payment of 20 percent of the employee’s base pay.

“The challenges that they have helped the Army meet are different from those we faced before 9-11, as we moved from a time of contingency operations into a dangerous and difficult period of continuous operations” Harvey said.

—Adapted from an Army News Service Release

## People in the News



*Gilbert W. Hovermale is chief of staff and deputy director of business management for the U.S. Army Medical Research Acquisition Activity.*

### **New deputy at acquisition activity**

Gilbert W. Hovermale became chief of staff and deputy director of business management for the U.S. Army Medical Research Acquisition Activity Jan. 9. USAMRAA is the contracting arm of the U.S. Army Medical Research and Materiel Command. It awards \$2 billion each year in contracts and assistance agreements in support of the command's missions of delivering medical materiel and equipment to operational forces and conducting medical research that advances the science of battlefield medicine. Hovermale oversees the activity's finance, information management, business oversight, policy and quality assurance functions.

A Baltimore native, Hovermale has worked for the activity since December 2003, serving as chief of a customer service center. Before coming to USAMRAA, Hovermale's served as director of acquisition management at the Naval Medical Logistics Command and chief of contracting at the Document Automation and Production Service, an element of the Defense Logistics Agency.

A Navy veteran, Hovermale served as an electronics warfare technician aboard the USS Forrestal in the late 1970s. After earning a bachelor's degree in public policy from Penn State in 1984, he began his career in contracting in January 1987 with the Navy's Strategic Submarine Support Office. In 1993, Hovermale received a master of arts in government studies from Hood College.

### **Materiel developers recognized**

More than 60 of the U.S. Army Medical Materiel Development Activity's employees gathered for a quarterly awards ceremony in February. Those recognized were:

► Theresa Deweerd for 30 years of civilian service

► Marie Reeves for 10 years of service.

► Lydia Boswell for being chosen Outstanding Administrative Assistant for the Baltimore Federal Executive Board's Career Service Awards Program

► Scott Doughty for being chosen Outstanding Professional, Technical, Scientific, and Program Support for the Baltimore Federal Executive Board's Career Service Awards Program

► Kathie Mantine for receiving the Commander's Award for Civilian Service for her performance in the year-long Sustaining Base Leadership and Management Program.

► Sharon Morgan and Jane Cook for serving as keyworkers for the Combined Federal Campaign

► Ed Hauer for being named employee of the quarter for the last quarter of 2005

Denise Brannan received a Certificate of Appreciation for serving as the 2005 representative for Operation Happy Holidays.

Theresa Allen, Frank Boss, Diana Huffman, Tina Huff and Annette Jackson of the budget team received performance awards for their budget year close-out activities.

### **Acquisition experts recognized**

U.S. Army Medical Research Acquisition Activity recognized staff members in an awards ceremony Dec. 14.

Charlie Phillips was recognized for his 30 years of service.

Pam Nevels was recognized for her 20 years of service.

The Purple Team was recognized by the TriCare Management Activity for its exceptional customer service.

## People in the News



Dr. John Graham, right, demonstrates for Dr. Winkenwerder, center, a wearable, portable diagnostic instrument that uses night vision technology and the fluorescence of an injected, FDA-approved dye to determine the depth of sulfur mustard burn injuries by examining microcutaneous blood flow. (Photo by Stephanie Froberg)

### Health Affairs visit

Dr. William Winkenwerder Jr., assistant secretary of defense for health affairs, and Dr. Stephen Jones, his principal deputy, visited the U.S. Army Medical Research Institute of Chemical Defense Jan. 24.

Winkenwerder said he came to evaluate the work being done at MRICD and to commend the institute's employees for the good job they were doing. He was also looking for a better understanding of the institute's mission and how its research program is relating to DoD. He got what he came for and left

with the reaffirmation that MRICD is "a critically important national asset."

"It was a great visit," Winkenwerder said after an eventful day of briefings as well as a tour of several MRICD laboratories. "There's really good stuff going on here."

He was particularly impressed with the uniqueness and the significance of the institute's mission and capabilities.

"This is a one-of-a-kind facility," Winkenwerder said. "There's no other like this in the U.S. military, or anywhere in the USA, period. The work done here is very important to protect the military and, more importantly, the public against the threat of chemi-

cal weapons."

A medical doctor, Winkenwerder was particularly interested in the training programs and materials developed by the institute's Chemical Casualty Care Division. Dr. Charles Hurst, chief of the division provided an overview of the courses and materials the division provides to military and civilian health care providers, field medics, first responders and now hospital personnel, with their newest course, the year-old Hospital Management of Chemical, Biological, Radiological/Nuclear and Explosive Incidents Course.

Winkenwerder applauded MRICD's efforts to reach out to and work with other government agencies and said that such cooperation and sharing of government resources was a goal of health affairs.

"We're trying to take a look at all the medical research across DoD," he said. "We're looking at opportunities to more effectively manage our research portfolio. So much good work goes on across the services and at other government facilities, such as NIH. One thing we want to pursue is how best to organize all those activities."

—Cindy Kronman, USAMRICD

### Excellence award

Maj. Kenneth Jacobsen of the U.S. Army Medical Research Institute of Infectious Diseases will receive the Henry and Lois Foster Award for Academic Excellence in Laboratory Animal Medicine June 27 at an awards luncheon of the American College of Laboratory Animal Medicine Forum in St. Pete's Beach, Fla. The award is given to individuals who achieve the highest scores on the written and practical portions of the ACLAM certifying examination. Jacobsen scored the highest on both the written and practical sections of the 2005 exam.

## People in the News

### Textbook contributors

Several command scientists contributed to the American College of Sports Medicine's new graduate textbook "ACSM's Advanced Exercise Physiology."

Dr. Michael Sawka of the U.S. Army Research Institute of Environmental Medicine was an associate editor and authored with Dr. Andrew Young, also of USARIEM, a chapter on physiological systems and their responses to conditions of heat and cold.

Dr. Charles Fulco of USARIEM coauthored a chapter about physiological systems and their responses to conditions of hypoxia.

Dr. Ed Zambraski of USARIEM authored a chapter on the renal system. Dr. Victor Convertino of the U.S. Army Institute of Surgical Research coauthored a chapter on physiological systems and their responses to conditions of microgravity and bed rest.

P. Darrell Neuffer, a former USARIEM scientist, coauthored a chapter on exercise genomics and proteomics.

Serving as reviewers were USARIEM researchers Dr. Allan Cymerman, Dr. Scott Montain, Dr. Stephen Muza and ISR researcher Charles E. Wade.

The book represents the first comprehensive graduate text in exercise physiology and is the most advanced and up-to-date resource spanning a knowledge base from the history of exercise physiology through examining the application of genomics and proteomics in advancing human exercise and environmental physiology.

### 'Mano-a-Mano' combatant researchers

Six of the 50 warfighters assigned to the U.S. Army Aeromedical Research Laboratory staff at Fort Rucker, Ala., have obtained the Physical Fitness Badge. USAARL Soldiers have added close combat training to their program.

In the past, "hand-to-hand" combat was characterized by running to the enemy and engaging him or her with a bayonet. However, in present-day combat, warfighters must be able to take the enemy down at closer distances.

Field Manual 3-25.150, "Combatives," contains four levels of training and teaches warfighters to be prepared for the enemy in an environment where conflict changes from low to high intensity over a matter of hours. USAARL trained with the goal of basic familiarization with level I combatives. They learned the four dominant body positions, drill one, stand-up in base and some basic chokes. Military combatives not only prepares warfighters for the present war but also increases their courage, self-confidence and resilience to stress.

### Excalibur winner

Several researchers from U.S. Army Medical Research and Materiel Command units received the 2005 Surgeon General's Excalibur award in the Active Component, TDA, Military Treatment Facility Category in February. The team was recognized for its vision, innovation, design and implementation of the AERO/Paperless Flight Physical Exam. The win-



Staff Sgts. Byron Pieper, top, and Patrick Wood of USAARL have added close combat training to their physical fitness programs.

## People in the News

ning team included:

▶ Col. James S. McGhee, commander, U.S. Army Aeromedical Research Lab

▶ Col. William Statz, former chief, Aviation Medicine Proponency

▶ Lt. Col. Thomas W. Greig, former director, United States Army Aeromedical Activity

▶ Maj. Austin Chhoeu, former deputy director, USAAMA

▶ Maj. Dana Thomas, former deputy director, USAAMA

▶ Maj. Jeffrey Cheeks, graduate student, National Postgraduate Institute

▶ Retired Chief Warrant Officer Mark B. Ivey, graduate student, Na-

tional Postgraduate Institute

▶ Eugene Johnson, graduate student, National Postgraduate Institute

▶ Martin D. Quattlebaum, AERO systems manager

▶ David M. Kair, production manager

▶ Robin Skinner, AERO programmer

▶ Brian McGinity, AERO programmer

▶ Lester McCracken, AERO programmer

▶ Mr. James Bishop, AERO programmer

▶ Adele Kynard, AERO receptionist

---

## News to use

### **Borden Institute releases preventive medicine volume**

Reflecting the significant growth and evolution of military preventive medicine, and completing a two-volume set, Borden Institute has released its latest book in the Textbooks of Military Medicine series. "Military Preventive Medicine: Mobilization and Deployment," Volume 2, offers comprehensive research on a range of topics related to preventive medicine, including the exploration of epidemiology in the field, various infectious diseases, preventive medicine efforts following disasters and the effects of postdeployment on Soldiers.

"Preventive medicine has an important tertiary prevention role that must be vigorously pursued if service members are to be successfully rehabilitated and avoid having their relatively manageable physical or mental problems evolve into long-term

disabilities," said Patrick W. Kelley, MD, the book's editor and Director of the Board on Global Health, Institute of Medicine, National Academy of Sciences.

The Borden Institute's publications are available free of charge to qualified U.S. military medical personnel. Each book is a comprehensive reference on the art and science of military medicine, extensively illustrated and written in an easy-to-follow narrative. The books are designed to show how military medicine has built on the lessons learned in past wars and lays out the scientific basis on which the practice of military medicine is grounded.

The Borden Institute offers volumes in hardback, as well as on its Web site and on CD-ROM. For more information on the Borden Institute and how to order the publications, visit [www.bordeninstitute.army.mil](http://www.bordeninstitute.army.mil).

## News to use



Training includes first hand experience with current patient decontamination technologies.

### Institute holds CBRNE course this month

The Army Medical Research Institute of Chemical Defense will offer the Hospital Management of Chemical, Biological, Radiological/Nuclear and Explosive Incidents Course April 24-28 at Aberdeen Proving Ground, Md. Although developed to provide civilian healthcare professionals with state-of-the-art instruction in planning for and managing multi-casualty incidents resulting from CBRNE terrorist attacks, the course is open to military attendees.

The HM-CBRNE course features classroom presentations and interactive discussion on chemical, biological and radiological agent effects and patient management, multi-casualty triage, personal protective equipment, decontamination, blast injuries and hazard detection. Additional topics include epidemiology, the National Incident Management System and

National Response Plan, and hospital emergency incident command and management. Instruction is also provided in the form of hypothetical scenario planning sessions and class interactions. The course culminates in a multi-hospital tabletop exercise simulating community response to a major non-conventional event, challenging students' ability to apply hospital incident management and other learned concepts. The tabletop requires professionals to manage limited hospital resources to meet the safety, patient care and other operational challenges of the hypothetical disaster.

The HM-CBRNE Course is hosted by USAMRICD's Chemical Casualty Care Division and is a joint venture of USAMRICD, the Army Medical Research Institute of Infectious Diseases at Ft. Detrick, Md., and the Armed Forces Radiobiology Research Institute, in Bethesda, Md. The institute has presented the course four times since December 2004, graduating 248 military and civilian students.

Individuals interested in registering for the April course are directed to [http://ccc.apgea.army.mil/courses/in\\_house/cbrne.htm](http://ccc.apgea.army.mil/courses/in_house/cbrne.htm). More information about the course is available from the Chemical Casualty Care Division, USAMRICD, at DSN 584-2230/3393, CML (410) 436-2230/3393, by e-mailing [ccc@apg.amedd.army.mil](mailto:ccc@apg.amedd.army.mil), or by writing to Commander, USAMRICD, Attn: MCMR-CDM (Chemical Casualty Care Division), 3100 Ricketts Point Road, Aberdeen Proving Ground, MD 21010-5400.

—Cindy Kronman, USAMRICD

## News to use

**USAMITC alleviates mailbox size limits**

Mailbox limits have been a user concern for years, but a new Mail Attachment System will soon help Army Medical Department users keep a virtually unlimited mailbox size.

Attachments are often the culprit for users quickly reaching their mailbox size limit. To help alleviate this issue, the USAMITC will deploy a solution called the HP Reference Information Storage System within the AMEDD.

The Reference Information Storage System will automatically move attachments out of a user's mailbox and store them in a separate, secure repository. The system replaces the original message in a user's inbox with an URL and a new icon—an indication that the message now resides on the storage system. This allows the Exchange server to retain a smaller database for optimal performance while keeping large attachments in a separate repository. This technology can potentially decrease the size of a message from 5MB to 2K, which allows users to store many more e-mail messages in their Exchange mailbox before they reach their mailbox capacity.

An add-in to Outlook client is required, along with a registry key entry. The implementation of the add-in and registry key will be transparent to the user; the most users may have to do is close and reopen Outlook after the update is applied. Users will be provided with a guide to help them get started. Additional technical details will be provided to system administrators so they can prepare for taking advantage of the mail attachment system within their support environments.

A separate storage system will be hosted at each messaging center. A "pilot phase" was conducted at the Western Messaging Center in Janu-

ary. Implementation of the Reference Information Storage System at other messaging centers began in the first quarter of 2006 and will be complete by September.

**Training opportunity**

Be on the lookout for upcoming training sponsored by the Medical Research Information Technology System, or MeRITS, office. A training team will offer sessions to teach users how to use the regulatory-compliant and practical information management tools the office offers for the U.S. Army Medical Research and Materiel Command's units involved in Food and Drug Administration-regulated products. Two topics will be covered:

► **Clinical Data Management Awareness Training**—The Principles of Clinical Data Management Learning Series provides information on good and widely accepted clinical data management practices for FDA-regulated clinical studies and why these practices need to be applied across the command. The curriculum will also include guidance on data management, draft standard operating procedures, draft templates and draft forms. Those interested in attending the training can send an e-mail including contact information to USAMRMC. MeRITS@amedd.army.mil.

► **FRED End User Training**—Training for FRED, which stands for FDA Regulated Electronic Documents, will provide end users with the skills to perform basic functions within FRED, including logging in, searching for information and viewing and downloading documents that have been loaded into FRED. All attendees will be issued a username and password. Those interested in attending the training can send an e-mail including contact information to USAMRMC.MeRITS@amedd.army.mil.