

# THE POINT

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



## Inside this issue . . .

**PB approved as  
soman  
pretreatment—2**

**Camouflage face  
paint with DEET  
available—4**

**Experts ensure  
pharmaceuticals  
ship safely—5**

**USAMRIID opens  
new lab—6**

**Cancer consortium  
gets \$10 million  
grant—8**

**Lab looks at pilots'  
performance after  
refractive eye  
surgery—9**

**Maintainers quiet  
heroes—10**

**People Making  
News—11**

## Handheld tool gives medics instant information

Sitting on a rocky hillside in Macedonia in 1993, frustrated Army medic Sgt. Tommy Morris had one thought: "This has got to be easier."

Charged with keeping track of medical information on his warfighters, keeping up his stock of supplies and hauling around heavy medical texts for the 8 1/2 months he was deployed every year, Morris was determined to fix the problem, not just for himself but for all medics.

By constantly asking, "How can I make this better?" Morris came up with the first prototype of the Battlefield Medical Information System-Tactical, or BMIST, while working at the Telemedicine and Advanced Technology Research Center in 1995 at Fort Detrick. A systems expert who has provided worldwide telemedicine support since 1993, Morris now serves as a program manager at the center.

"Basically, the BMIST is a point of care diagnostic tool for first responders—be it a medic, a PA (physician's assistant), a doc—that captures basic data from a medical encounter. They put in the symptoms, and it comes up with a treatment plan based on the user's skill level," he said.

During Desert Shield and Storm in the early 1990s, most medics didn't keep medical records for sick call or injuries at their level of care. Responding to incomplete medical information on troops who served in the Persian Gulf, Congress passed a law in 1997 requiring the Defense Department to establish a system that could, among other things, "accurately record the medical condition of members before their deployment and any changes in their medical condition during the course of deployment."

The patent-pending, government-owned BMIST does what the public law requires

and provides solutions for the problems medics face. Via taps of a stylus, a finger or a twig on the screen menu of a handheld personal digital assistant, the BMIST stores every medical encounter—from a sick call visit to a combat injury—at any level of care to ensure every warfighter comes home with an intact medical record.

"Patient-centric" medical records are stored on the device or removable storage media, such as a Personal Information Carrier, that can travel with the warfighter to more sophisticated levels of care. With BMIST being part of the Theater Medical Information Program, all medical encounters during a deployment can be transmitted to the Composite Health Care System II, the U.S. Special Operations Command Health Surveillance System and the military's ultimate repository for medical information, the Clinical Data Repository. By being able to store data in these systems, the BMIST helps the military meet the part of the legislation requiring deployment health records to be filed in a centralized location to improve future access to them.

Developed in less than three years for \$225,000, the device, Morris said, allows "total visibility of the medical record all the way through the echelons of care. Later they (researchers) can go back and data mine for information because it will all be there."

USSOCOM medics, who are warfighters first and medics second, travel with small teams in some of the most geographically isolated areas of the world, so they need a solution "as far forward as possible that is beyond the paper and pencil method," said Maj. Richard Hartman of the U.S. Special Operations Command's Surgeon's Office.

The Point is published quarterly. 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.

## Pyridostigmine bromide first drug approved under new 'animal rule'

For more than 15 years, military officials sought to gain the Food and Drug Administration's approval for a drug that can combat the effects of the deadly nerve agent soman. On Feb. 5, their seeking ended.

Pyridostigmine bromide is now FDA approved as a pretreatment for warfighters to use against the effects of soman, or GD, which is highly lethal in very small quantities. First approved by the FDA as a treatment for myasthenia gravis, a chronic neuromuscular disease, PB was proposed

as a protection against soman by British researchers in the late 1970s. Researchers at the Walter Reed Army Institute of Research and the U.S. Army Medical Research Institute of Chemical Defense started looking at it further.

"The Army's ... been working on PB since the early 80s, but in 1988 the FDA said it could not approve PB for the military's intended use because there was no way to approve it," said

See 'PB,' page 3

### 'BMIST' from page 1

"The only answer we had was to generate a paper Standard Form 600 (used to record medical treatment) if someone got sick," he said. "What happens with our guys is they have to make a decision: Do they take bullets or do they take paper?"

The BMIST lets medics forego the paper and do their job quicker, Morris said. For instance, because

the warfighter's information is embedded in the BMIST, the medic can tap out a field medical card in 15 seconds instead of three to five minutes it takes using a "stubby pencil."

The program's ability to take a snapshot of troop health at any given time lets commanders know how their troops are faring in the field. The BMIST can also be used as a decision-making tool because it will alert commanders that troop strength

is reduced because of illness.

As medics provide treatment, the BMIST can prompt what allergies the warfighter has or what dosage of medications or type of IV solution should be used and if evacuation is necessary. The device also lightens the medic's load by including electronic medical references like the Special Forces Medical Handbook and veterinary handbooks.

Morris also programmed the BMIST to order supplies. As a medic provides treatment, the system automatically notes what supplies were used—be it an aspirin in sick call or a bandage on the battlefield—and places an order.

The device is packed with modules that help medics use the Glasgow Coma Scale, determine color blindness that may have resulted from laser exposure, assess restaurants' cleanliness to clear them for warfighters' patronage and screen the mental health of a warfighter to help mental health professionals prioritize who needs to be seen.



*BMIST is a point-of-care diagnostic tool for first responders that captures basic data from a medical encounter.*

**PB** from page 2

Dr. Ronald Clawson, deputy project manager for the Chemical Biological Medical Systems Project Management Office. “We would never do studies in humans where we exposed them to soman to prove it (PB) works, and the FDA had no other mechanism to approve it except by that kind of proof.”

Researchers proved PB was safe for humans when it was approved as a treatment for myasthenia gravis in the 1950s, and the Army and the Defense Department did additional safety studies to evaluate it in operational conditions.

Through the “animal rule,” passed in June 2002, the FDA acknowledged that products effective against chemical, biological and nuclear weapons that can’t be tested on humans can be tested on animals. Good, convincing data lets the FDA approve those products with this rule.

PB, in fact, is the first drug approved under the animal rule.

Pyridostigmine bromide works by temporarily binding to the same enzyme—which is needed for muscles to work properly—that soman permanently attaches itself to. A dose of PB frustrates soman in the same way a partially full mall parking lot thwarts a shopper: There’s few places to park, so the soman can only find a few parking spaces and the rest passes through. After a short time, the PB unbinds from the enzyme, which then goes on to do its job.

To be effective, PB must be taken before soman exposure and must be used with the nerve agent antidote injector kit. Taking it after exposure doesn’t help because soman binds to the enzyme within two minutes, allowing no time for PB to get to the enzyme first, Clawson said.

Current doctrine says every servicemember deployed to a high-

threat area will be given a seven-day supply of PB, and the unit will keep an additional seven-day reserve. Clawson said servicemembers can take the drug longer than 14 days if the risk of nerve agent exposure is great and leaders deem it necessary, but servicemembers don’t need to take it continuously to benefit from it.

Researchers are continuing to study PB for the FDA. Clawson said three studies have been proposed, two for safety and one for effectiveness.

New packaging includes a list of side effects that are mostly gastric-stomach cramps, diarrhea, nausea and subside as the person gets used to PB or stops taking it. Further, labels clearly say that people with past histories of bowel or bladder blockages or who are sensitive to medications used during surgery should not take PB.

Every servicemember who receives PB in the future will also know it was approved under the FDA’s animal rule.

“We’ve printed up over four million package inserts and mailed them ... so they can be given out if the tablets are given out,” Clawson said. “We want to make sure everybody knows as much as they want to about PB. During the Gulf War, we didn’t do such a great job because of the timing issue, and we learned our lesson.”



*Pyridostigmine bromide was first used as a pretreatment for soman under an investigational new drug application during the Gulf War.*

## New paint—No pests

Until recently, soldiers who needed to use repellent and camouflage face paint at the same time ran into sticky situations.

“If you applied the repellent first and then the face paint, the paint hindered the repellent’s effectiveness. If soldiers reversed the order of application, the repellent made a gooey, smelly mess ... and soldiers weren’t using it,” said Col. Raj. Gupta, a medical entomologist who’s worked



*Camouflage face paint with and without DEET is now available through Defense supply channels.*

on fixing the face paint and repellent problem since 1989.

Two new camouflage face paint compacts—a brown-cased one has DEET, a green one

doesn’t—have five colors for soldiers to use when they hide in plain sight. With the new compacts, warfighters will have all the colors they need for a deployment anywhere in the world. The plastic compacts contain 20 applications of green, loam (a dark, greenish brown) and sand and 10 applications of white and black, a new color for the military.

“When we talked to soldiers, we found that they really wanted the black color to produce shadow effects and to match their BDU (battle dress uniform) colors,” said Scott Doughty, a biomedical engineer and product manager for the face paint for the U.S. Army Medical Materiel Development Activity.

Textile technologist Anabela Dugas has tested the two formulations for their visual and near-infrared protection at Natick Soldier Systems Center since 1998. Just as she does with all military camouflage items, she used a color spectrometer to determine each paint’s reflectant properties, ensuring the readings were within acceptable minimum and maximum ranges for visual protection as well as for defeating night vision goggles.

Once the paint color passed that test, soldiers smeared on the paint and headed for the camouflage evaluation facility that has arctic, woodland, urban and desert scenes. There, researchers donned night vision goggles to confirm if the spectrometer’s readings were accurate.

Because the product ultimately belongs to soldiers, researchers took it to the field to see if soldiers liked it. Gupta brought the product to an infantry company in Panama in 1996 for its first study. He knew he was headed toward a successful product, he said, when the soldiers kept the prototypes. Later studies conducted in 1999 by Walter Reed Army Institute of Research researchers Lt. Col. Mustapha Debboun and Col. Dan Strickman in Thailand and by Debboun in Korea in 2001 let seven additional infantry companies test the face paint.

The team that developed the compacts is also taking on the widely used camouflage face paint sticks to get them up to the same standard as the compacts. The dispenser, which is rolled aluminum and can cut less-than-svelte fingers and easily dislodges its cap, can also stand improvement, Doughty said.

## Team ensures vaccines arrive on time, intact

When top Defense officials mandate anthrax or smallpox vaccinations for servicemembers, a small group of dedicated logisticians at the U.S. Army Medical Materiel Agency spring into action. Their job: make sure the vaccine gets where it needs to go and arrives in pristine condition.

The agency's Distribution Operations Center professionals are experts in cold chain management; specifically, the packing and storage of medical materiel requiring refrigeration or other special handling requirements, said Maj. Patrick Garman, USAMMA pharmacy consultant.

"USAMMA has been a pioneer in the process of controlling a product's temperature during shipping," he said.

Since February 1998, the group has dedicated its energies toward developing protocols for packing vaccines properly, finding cutting-edge temperature monitoring devices, ensuring vaccine refrigerators used in shipping run properly and making sure customers understand the importance of keeping vaccines at the proper temperature.

"We make sure no vaccine is compromised because of temperature variations, so it is safe for the soldiers receiving the immunization," said Ruben Gueits. "We also save the government money by limiting the amount of vaccine that has to be wasted due to being exposed to temperature extremes."

For the past 10 months, the group has been hustling. After a two-year hiatus from shipping the anthrax vaccine, the staff awoke that dormant program. Come fall 2002, the center started its annual distribution of the Army's supply of flu vaccine but also

geared up during the winter to ship the smallpox vaccine, along with other specialized biologicals, to Southwest Asia.

Even with its increased workload, the group didn't miss a step. In fact, not one dose of the 2002 flu vaccine was lost. "Most years, the military services order extra because they know they'll lose some to temperature fluctuations," Garman, a pharmacist, said. "Next year, we know we'll need to order only as much as we need."

Using insulated shipping containers and portable refrigerators that can keep vaccines at their optimal temperature of 36 to 46 degrees Fahrenheit on land, sea or air, the team goes to extreme lengths to make sure its cargo stays at the right temperature so it's safe for vaccine recipients and no doses are lost to temperature fluctuations. In fact, several team members flew on cargo planes this winter, escorting shipments of anthrax and smallpox vaccine as well as investigational new drugs that may have been needed if soldiers in Operation Iraqi Freedom encountered biological warfare.

Of the thousands of vials of unique products the team escorted, they considered each one "priceless." "In some cases, we shipped all there was of the product, so we weren't going to take a chance on losing any of it," Garman said.



*Distribution Operations Center professionals at the U.S. Army Medical Materiel Agency are experts in cold chain management of pharmaceuticals.*

## USAMRIID cuts ribbon on new molecular biology laboratory

With a snip of the scissors, the U.S. Army Medical Research Institute of Infectious Diseases officially opened its largest amount of new laboratory space since 1995.

In an opening ceremony Feb. 27, USAMRIID Commander Col. Erik Henchal noted that the new molecular biology laboratory will be shared by five research divisions: Virology, Bacteriology, Toxinology, Pathology and Diagnostic Systems.

“This marks a new era for USAMRIID,” Henchal said, adding that the new laboratory was designed to maximize sharing of resources and scientist-to-scientist interactions in selected research areas.

The recently renovated 5,500-square-foot space in Building 1425 originally housed an outpatient

health clinic that served Fort Detrick servicemembers and their families. USAMRIID regained the space with the opening of Barquist Health Care Facility in 2000. The renovation cost \$945,000 and took just over a year to complete.

In addition to the large shared laboratory space, the former clinic area now houses a separate tissue culture laboratory, microscope room, office space, a conference room and restrooms.

USAMRIID hopes to enhance the development of more than 10 medical products for biological defense in the new laboratory, which will house activities related to the development of new imaging methods, proteomics,

See 'USAMRIID', page 7

### 'USAMMA' from page 5

Because of the need to control a vaccine's temperature from manufacturer to shipper to customer, communication is a paramount concern, and the staff is tenacious about tracking shipments, Gueits said.

“Communication with the commercial carrier (usually an overnight carrier like DHL or FedEx) ensures that all three parties—the Distribution Operations Center, the carrier and the receiver—know that a temperature-sensitive shipment is making its way through the shipping agents' delivery process,” he said.

This attention to detail is why the Distribution Operations Center maintains an exceptionally high success rate of safely delivering temperature-sensitive products. Team members do whatever it takes to ensure their customer's needs are met, Garman said. When medical staffs in Iraq needed drugs and supplies for Iraqi burn patients, team member Bonnie

Pereschuk went to Brooke Army Medical Center in San Antonio to pack and coordinate the shipment of the temperature-sensitive medicine. They also developed a training CD-Rom so their customers know about the tools and procedures for moving pharmaceuticals within narrow temperature ranges.

“We don't want our shipping containers sitting on a pier in the hot sun,” Garman said. “The better informed our carriers and our customers are, the less likely it is that will happen.”

The major said his staff is also looking at technology that will prevent the pier scenario from happening. They are exploring the idea of including a global positioning satellite device with the current temperature monitors. Then, if a carrier loses track of a shipping container, the GPS technology will let the center's staff say exactly where it is and what the temperature of the contents are. — *Information culled from a paper by Maj. Patrick Garman*

**USAMRIID' from page 6**

bioinformatics, molecular cloning and improved diagnostics for biological threats.

Over its 30-year history, USAMRIID has developed vaccines, drugs, diagnostics and other medical solutions to protect U.S. service-members from biological warfare threats and endemic infectious diseases.

Currently, USAMRIID has vaccine candidates for botulinum neurotoxins A and B, Venezuelan equine encephalitis and plague entering advanced development. Soon to be transitioned are a next-generation anthrax vaccine, as well as vaccines for staphylococcal enterotoxins A and B, hantaviruses, and five additional serotypes of botulinum neurotoxins (designated C-G).

About a dozen other vaccines developed at USAMRIID are maintained in investigational new drug status and are used to immunize at-risk personnel in the laboratory and in the field where necessary.

The institute is also working to develop therapeutics for a number of agents, including Ebola virus, several toxins and orthopox viruses (including smallpox, which is studied by USAMRIID investigators at the Centers for Disease Control and Prevention in Atlanta—the only official repository of the smallpox virus in the United States).

In the past year, USAMRIID has transitioned 32 diagnostic assays to the Joint Program Executive Office for



*Cutting the ribbon on USAMRIID's new molecular biology laboratory Feb. 27 are, from left to right, Maj. Charles Millard, chief, Toxinology; Col. Erik Henchal, commander; Dr. George Ludwig, chief, Diagnostic Systems; Lt. Col. Mark Martinez, chief, Pathology; Lt. Col. Jeff Adamovicz, chief, Bacteriology; and Maj. Jamie Blow, chief, Virology.*

**Chemical and Biological Defense.** These include assays to support the Joint Biological Agent Identification and Diagnostic System, as well as assays that are deployed with the 520th Theater Army Medical Laboratory and the Theater Medical Surveillance Team.

USAMRIID plays a key role as the Department of Defense's lead agency for medical aspects of biological defense research.

Henchal said the institute's new laboratory "will enable investigators across divisions and disciplines to continue to work together to make the products needed by the Army and the Department of Defense."

— *Caree Vander Linden,  
U.S. Army Medical Research  
Institute of Infectious Diseases*

## Consortium gets \$10 million for prostate cancer research

Prostate cancer researchers formed their own dream team March 10 to make strides toward a cure, thanks to a \$10 million, three-year grant from a program based at Fort Detrick.

“For us, the awards are huge,” said Leo Giambarresi, manager of the Prostate Cancer Research Program. With the typical grant for prostate cancer research being \$500,000 over three years, the multimillion dollar award is the largest for both Giambarresi’s program and its parent organization, the Congressionally Directed Medical Research Program, which dispensed \$85 million in grants last year for prostate cancer research.

Three years ago, Col. Ken Bertram, M.D., Ph.D., the director of CDMRP came up with an idea of building consortia that would be goal or product driven for prostate cancer research. The 15-member panel of scientists, clinicians and survivors of prostate cancer who serve as advisers to the Prostate Cancer Research Program took the consortia from concept to reality.

“The thought behind it is was to get the best minds to work on important questions about prostate cancer,” Giambarresi said. “The intent was basically to develop a goal- or product-oriented research effort where synergy is at the center so the whole is greater than the sum of its parts—a multi-disciplinary, multi-institutional effort that brings together the nation’s best.”

The consortia’s product, he said, can be an answer to a question or a family of drugs that may cure prostate cancer. “Ideally, the product

would be the cure,” he said. “Is that attainable in three years? Possibly.”

Dr. Jonathan Simons of Emory University is managing one consortium that has nine projects to identify new therapeutic targets and concepts for treating prostate cancer that has metastasized.

“We want to know why prostate cancer metastasizes to bone and how we stop it,” Giambarresi said. “It’s an ambitious proposal, and the people he (Simons) has working on it are really talented and excited.” The Emory consortium’s goal is to have several drugs that will interrupt the metastasis process ready to go into clinical trials at the end of the third year.

For its part, the Prostate Cancer Research Program officials will be hands on during the three years because the money was given as a cooperative agreement, rather than a grant.

“Both are similar funding instruments, but the key word is ‘cooperative,’” Giambarresi said. “We’re all working together to find the respective answers for the consortia.”

The Prostate Cancer Research Program was initiated by congressional appropriations in 1997 and has received \$395 million dollars for peer reviewed research from 1997 to 2002, providing more than 800 awards to institutions for better diagnosis, treatment and steps towards a cure for prostate cancer.

Ninety percent of the fiscal year 2002 awards have been negotiated, bringing funding to research faster. For fiscal year 2003, the Prostate Cancer Research Program has received an appropriation of \$85 million.

“We want to know why prostate cancer metastasizes to bone and how we stop it. It’s an ambitious proposal . . .”

—Leo Giambarresi, Ph.D., manager of the Prostate Cancer Research Program

## Study looks at aviators after refractive surgery

Not meeting vision standards is the biggest physical disqualifier for becoming an aviator for the Army, according to officials at the U.S. Army Recruiting Command. But aviator hopefuls who undergo refractive surgery to correct their eyesight are, by policy, prohibited from flying.

An ongoing study on refractive eye surgery at the U.S. Army Aeromedical Research Lab at Fort Rucker is changing everything for some aspiring aviators.

The lab has helped 200 aviation applicants obtain medical waivers so they can attend flight school even though they've had refractive surgery, either photo-refractive keratectomy, also called PRK, or laser-assisted in situ kerato-mileusis, called LASIK. If an applicant does get a slot in flight school, the lab monitors the student's progress to see if the surgery affects his or her ability to learn to fly.

"We want to make sure that if you put some kind of correction on a person's eyes ... that it does not decrease their performance, only enhances it," said study principal investigator Lt. Col. Corina van de Pol, a research optometrist at USAARL.

To see how study volunteers progress in flight school, van de Pol and her team look at instructor pilots' evaluations to compare study subjects with other students attempting the same task. Night flight is being especially scrutinized because 30 percent of those who have refractive surgery have some problem with night vision.

"In general, they've been doing very well," van de Pol said. "We have to take into account the fact they're probably extremely motivated because they ... were told they couldn't be a pilot and now all of sudden they can

fly." Graduates from flight school receive annual examinations that allow them to renew their waivers.

After several years of flying, Blackhawk pilot Chief Warrant Officer Chad Baker needed his

vision corrected to fly. These days, he's seeing better than ever because of a second refractive surgery study the lab undertook in February 2002 that looks at how refractive surgery affects seasoned aviators' flying skills. Like all the rated aviators who volunteer for the study, Baker underwent refractive surgery at the Walter Reed Army Medical Center Center for Refractive Surgery. In exchange, Baker is allowing the lab to monitor his post-surgery progress.

The study has a goal of looking at 40 Blackhawk pilots who had LASIK and 40 with PRK. Pilots are tested before surgery and a week, a month and six months afterward.

"Every pilot (except for one who injured his eye while moving wood) so far at one month post op has been given the up slip (to fly)," van de Pol said. "As far as analyzing the data, the instructor pilots' subjective ratings indicate there's no deficit in performance. They're basically the same or better."

Researchers owe the Army Surgeon General their preliminary study results by the end of September to assist the aviation community in looking at the Army policy on refractive surgery.



*An aviator's night vision is tested rigorously after refractive surgery.*

## Medical maintainers war's invisible heroes

“Preventive maintenance, calibration and electrical safety tests of medical equipment is crucial because the Army Medical Department’s weapon systems are the technological tools the healthcare provider uses from the ‘Golden Hour’ until a soldier is returned to duty,” said Chief Warrant Officer Curtis Randolph, director of the Maintenance Engineering and Operations Directorate for the U.S. Army Medical Materiel Agency.

Those tasks—fielding and repairing



*Pete Dudley, a civilian medical equipment repairer based in Utah, ensures machinery is ready for action.*

ing medical equipment and test, measurement and diagnostic equipment — are taken on by the agency’s Maintenance Engineering and Operations Directorate. The directorate oversees two divisions: the Army Medical Department’s

National Maintenance Point—which provides strategic direction—and the Medical Maintenance Operations—which provides operational support at U.S. depots in California, Utah and Pennsylvania.

The directorate, Randolph said, “has provided the type of maintenance services that is expected of this organization, time and time again,” including support of Operation Iraqi Freedom.

For that operation, the directorate blended old maintenance concepts with an emerging AMEDD sustainment maintenance concept. Comple-

ing maintenance cycles was key to making sure combat hospitals and field hospitals were fully mission capable, Randolph said. The cycle included performing preventive maintenance, calibration, services and electrical safety on medical equipment to see if the hospitals were indeed ready to go.

In all, the Maintenance Engineering and Operations Directorate performed maintenance cycles on five combat support hospitals and one field hospital from the Army Prepositioned Stock and Reserve Component Hospital Decrement.

“The scheduled services for the RCHD (Reserve Component Hospital Decrement) have never been performed on medical equipment, since it was put in storage,” Randolph said. “Some equipment has been stored since the mid 1990s.”

The overall mission required more than 30 technicians, servicing well over 2,100 items of equipment, using over \$20,000 in parts and supplies in a period of just over six weeks. To get the job done, external manpower was critical because the industrial base does not maintain a surplus of medical equipment repairers, a high-technology military occupational specialty.

In fact, there’s a big difference between medical maintainers and other maintenance people. “The medical equipment repairer must understand medical principles and practices and be a team member of the healthcare system,” Randolph said.

To get the six hospitals ready, assistance from 91As from supporting units was vital. Fielding that medical equipment to deploying units allowed

## People Making News

### Kidney donation

Spc. Randy Lee underwent surgery April 30 to donate one of his healthy kidneys to his brother, John Lee, who was suffering from End Stage Renal Disease, or kidney failure.

Two years ago the subject of a transplant came up while Randy was stationed in Korea. John didn't want to endanger his youngest brother, so no decision was made at that time. "Years ago, when my mother was dying of kidney failure due to other medical complications, I vowed that I would take care of the other kids," said John, the oldest of five.

John was on dialysis for a couple of years prior to the surgery but managed to keep working full time. Although dialysis was life sustaining, it became apparent to John that it was not going to afford him the stamina he needed to continue to do his job as director of nursing at a center in Waco, Texas.

Randy insisted on helping his brother out with a donation of one of



*John Lee and brother Spc. Randy Lee*

### 'USAMMA' from page 10

the training base that resides in the fixed medical treatment facilities to support the deploying efforts.

"They were excellent," Randolph said. "Workload at the AMEDD depots surged to the point that the U.S. Army Medical Command provided 5,800 medical equipment repairer man hours to support this effort, a true national AMEDD maintenance response."

The industrial base responded as well. They met short timelines and partnered with the military community. Partnering action took place time and again, but the first occasion involved sharing the workload with one of the Regional Medical Commands. "Madigan (Army Medical Center) answered the call and provided the medical equipment repairer and test equipment to perform the work in the manufacturer's facility," Randolph said.

Additionally, one manufacturer lent an Army medical equipment repairer floor space at its factory to perform technical inspection for acceptance. "The required tests being conducted on the floor—with Army documentation and test, measurement and diagnostic equipment—meant that the medical equipment was ready for issue to units when received by the military," Randolph said. "When the equipment was shipped to the depots, the partnering action

saved a minimum of 1,200 man hours and delays in equipment fielding."

Just because units were deploying, the directorate's maintenance sustainment mission did not diminish. Though deploying units had priority, many missions that affected unit readiness continued with a renewed emphasis. For instance, the AMEDD Regional Medical Command's medical equipment repairers supported Reserve Component and National Guard units.

"There was a true effort of cross-leveling workloads between USAMMA's three depots and the Regional Medical Commands, and this was the first time a true 'national' medical sustainment program was exercised," Randolph said. "While these actions stressed the AMEDD maintenance system, they were quite successful in sustaining the medical force."

The combined efforts of the AMEDD maintenance community to inspect, repair, calibrate, safety test, install, sustain and document the history of medical equipment is a tribute to the professionalism and can-do attitude of the medical equipment repairer.

"Our nation's sons and daughters are entrusted to the medical equipment service provided by these skill unsung heroes," Randolph said. "Maintenance matters when you are the patient."

## People Making News

his kidneys. He researched the medical procedure and discussed his desire with his doctors. When he was reassigned to Fort Riley, Kan., Randy's journey of being a potential donor began. Once tests showed Randy was a good candidate, Methodist Specialty and Transplant Hospital in San Antonio was chosen as the surgery site. Randy was given a compassionate reassignment to USAMISSA, and surgery was set.

Dr. Sammy Vick performed a laparoscopic donor nephrectomy to remove one of Randy's healthy kidneys. Two small incisions were made to insert a camera, one for a cutting tool and a then a four-inch incision around his navel to remove his left kidney. Dr. Francis Wright successfully transplanted the donated kidney into John by making one large incision to place the kidney in his pelvis. His two malfunctioning kidneys remain in his body, but the new kidney from his brother will do all the work.

Within six hours of the surgery, Randy was up and walking around the transplant floor. Besides the postoperative pain, he didn't feel any difference in his body. John felt the difference the new kidney made in his body and was looking forward to "a banana split and a glass of milk"—two things that were restricted on his dialysis diet.

"I can't thank Randy enough for making such an outstanding donation ... I can't say thank you enough—words aren't enough," John said.

— *By Monica Yacenda,  
U.S. Army Medical Information  
Systems and Services Agency*

### New commander

Lt. Col. Keith Martin took command of the U.S. Army Center for Environmental Health Research April 24 from Col. Stephen Berté who left to become project manager for Chem/Bio Medical Systems in Falls Church, Va.



*Martin*

A preventive medicine officer, Berté said his 10 months at the center had been a "wild ride" and the team could thank him for the move to its "palatial digs" of temporary trailers during building renovations. He said he hoped the experience of working shoulder to shoulder would foster teamwork that would endure once the construction was complete.

Martin, a molecular biologist, said he was honored and flattered to take command of the center during its time of transition. "As biologists, we know that things that fail to thrive, fail to have a future," he said.

### New command sergeant major

Command Sgt. Maj. Domingo Costa replaced Command Sgt. Maj. Paul Servantez as U.S. Army Medical Research and Materiel Command's senior enlisted adviser and guardian and keeper of the command's colors April 24 during a ceremony at Fort Detrick. Costa, a combat medic with leadership skills honed through myriad assignments, schools and major operations, was called "a proven leader" by Maj. Gen.



*Costa*

## People Making News

Lester Martinez-Lopez, the commanding general of the command and Fort Detrick. Costa promised his “unwavering commitment” while “serving with the finest soldiers and civilians the free world has to offer.”

“The foundation that I have stepped on is not sand, but solid,” Costa said.

### Field medicine experts



*Huber*



*Crowe*



*Jacobsen*

After a grueling week of competition April 19-25, Capt. Dustin Huber and Spc. Michael Crowe of the U.S. Army Dental Research Detachment and Spc. Erik Jacobsen of the Walter Reed Army Medical Center each earned the Expert Field Medical Badge at Camp Bullis in San Antonio. Crowe had the added distinction of posting the fastest time for the 12-mile road march

The badge recognizes soldier medics who attain a high degree of professional skill and proficiency as a field medic. It rewards those who can expertly perform in a simulated combat environment, both soldier common tasks and medical tasks.

During the San Antonio competition, 104 soldiers started the test, and 18 earned their badges. The overall pass rate for the test in fiscal year 2002 was 15 percent.

To earn their badges, Huber, Crowe and Jacobsen passed a written exam and an Army Physical Fitness Test and showed their

prowess in day and night land navigation and weapons. Under simulated combat scenarios, they demonstrated their proficiency in communication, survival skills, emergency medical treatment, CPR and evacuation.

They also completed a litter obstacle course where they formed into four-person squads to negotiate eight obstacles, including trenches, barbed wire and rough terrain.

Brig. Gen. Richard Ursone and Brig. Gen. Daniel Perugini presented the badges to the soldiers April 25 after the 12-mile march.

### Belkin Award winner

Dr. Richard Wilkerson of the Walter Reed Army Institute of Research's Biosystematics Unit received the John N. Belkin Memorial Award at the annual meetings of the American Mosquito Control Association March 3. He received the honor for continued excellence in systematics and training for identification of mosquitoes of public health significance.

The award was first given in 1981 by the American Mosquito Control Association in memory of mosquito taxonomist John N. Belkin. Today it is given to researchers who embody in some way Belkin's research persona.



*Wilkerson*

## People Making News

### Top civilian award winners

Three employees of the U.S. Army Medical Research Institute of Infectious Diseases received the highest honor given to Defense Department civilians at a Pentagon ceremony March 14.



*Pitt*



*Little*



*Ivins*

Dr. Louise Pitt, Dr. Bruce Ivins and Stephen Little were awarded the Decoration for Exceptional Civilian Service, which is equivalent to the Distinguished Service Medal for military service. Patricia Fellows, formerly of USAMRIID, also received the award. From April 2000 to February 2002, they served as members of the Anthrax Potency Integrated Product Team, which was responsible for solving technical problems associated with the manufacture of the anthrax vaccine used by the DoD.

Anthrax Vaccine Adsorbed is manufactured by Bioport Inc. of Lansing, Mich. In 1997, U.S. military personnel began receiving the vaccine to protect against a possible biological attack. Several months later, Bioport encountered difficulties with the potency test required for the vaccine to maintain licensure with the Food and Drug Administration. A number of vaccine lots failed the potency test, causing a shortage of vaccine and eventually halting the Anthrax Vaccine Immunization Program.

Getting the anthrax vaccine back into production was the mission of the IPT. Over a nearly two-year period, the team performed site visits to Bioport, working directly with the manufacturer. This close coordination was important, Ivins said, to determine where the problems were and re-

solve them so the vaccine would pass the potency test.

Pitt's expertise in aerobiology was tapped to design, conduct and interpret key aerosol studies of the vaccine's efficacy using animal models. She solved procedural problems related to the potency assay and helped plan the studies that compared different lots of anthrax vaccine in rabbits and among guinea pigs from different vendors, thus identifying a major source of variability in the potency assay. These studies allowed test results obtained with numerous vaccine lots, conducted at different laboratories, to be compared in a meaningful way.

Ivins helped perform studies comparing vaccine efficacy from different vaccine lots in the rabbit aerosol model of anthrax. He also solved problems associated with the production, purification, storage and use of the anthrax spores needed for challenge in the potency assay.

Little established the immune assay systems used in studies comparing serological responses to the human anthrax vaccine by the manufacturer. He also supplied Bioport with the diagnostic reagents needed for these serological studies.

Fellows provided expert advice to Bioport for spore storage procedures and protocols, and she provided technical assistance to a Bioport contractor with respect to methodology for producing, harvesting and purifying anthrax spores. She also assisted with a number of the animal studies that were performed.

—Caree Vander Linden,  
U.S. Army Medical Research  
Institute of Infectious Diseases

## People Making News

### Arctic adventurer

In March Lt. Col. Ronald Walton, chief of experimental surgery at the U.S. Army Institute of Surgical Research at Fort Sam Houston spent two and 1/2 weeks in Alaska as one of the Iditarod's volunteer vets.



*Walton*

The only military vet on the team, his board certification in emergency and critical care medicine complemented the volunteer veterinary staff, which included general vets and those certified in surgery, cardiology and pathology.

Sixty-four teams started the 1,150-mile Alaska dogsled March 1, and each could have up to 16 dogs pulling. For vets, this meant more than 1,000 dogs were examined during the two days before the race began. Every dog is examined at the checkpoints as well.

“Actually, they (the dogs) are taken better care of than the mushers. They’re on their own if they have any health problems, because you’ll notice there aren’t any physicians at the checkpoints,” he said.

At the checkpoints, Walton said he and the other volunteers worked basically around the clock and slept when they had time. “Some days we worked 20 hours straight, especially when the teams were bunched up at the beginning,” he said.

### Outstanding Europe unit

The Vice Adm. Richard Carmona, U.S. Surgeon General of the U.S. Public Health Service honored the U.S. Army Medical Materiel Center-Europe with an Outstanding Unit Citation on Sept. 6, 2002. Initially intended for presentation at the March command conference, the award was presented to Col. Jettaka Signiago later in spring 2003.



*Signiago*

### Staff changes

✓ Col. Gina Deutsch replaced Col. Sheila Baxter, as chief of staff, U.S. Army Medical Research and Materiel Command.

✓ Col. James Romano will replace Col. Jeff Davies as deputy commander of U.S. Army Medical Research and Materiel Command.

✓ Col. Gennady Platoff will replace Romano as commander of the U.S. Army Medical Research Institute of Chemical Defense. Col. Michelle Ross will become the deputy commander of USAMRICD.

✓ Lt. Col. Karl Friedl will replace Col. John Obusek as U.S. Army Research Institute of Environmental Medicine commander.

✓ Lt. Col. Brian J. Lukey will replace Friedl as Research Area Director for Military Operational Medicine at USAMRMC.

✓ Col. Stephen L. Denny will replace Col. Nathaniel Powell as director of the Animal Care Review and Use Office at USAMRMC and Consultant to the Army Surgeon General for Animal Lab Medicine.

## People Making News

### Deployed team recognized

The team that deployed to Southwest Asia to shepherd investigational new drugs in the



*Col. Shiela Baxter, U.S. Army Medical Research and Materiel Command chief of staff welcomes home the IND team.*

ater received accolades and awards in a ceremony May 29 at the U.S. Army Medical Research and Materiel Command Headquarters.

### Meritorious Service Medals

Col. Edwin Anderson, U.S. Army Medical Research Institute of Infectious Diseases

Col. Laura Brosch, U.S. Army Medical Research and Materiel Command

Col. Timothy Endy, USAMRIID

Col. Jeffrey Gere, U.S. Army Medical Materiel Development Activity

Col. Isiah Harper, USAMRMC

Col. Donald Heppner, Walter Reed Army Institute of Research

Col. Robert Kushner, WRAIR

Col. Alan Magill, WRAIR

Lt. Col. Niranjan Kanesa-Thasan, USAMRIID

Lt. Col. Kent Kester, WRAIR

Lt. Col. Mark Kortepeter, USAMRIID

Lt. Col. Harold Modrow III, USAMMDA

Lt. Col. Christian Ockenhouse, WRAIR

Maj. Bret Purcell, USAMRIID

Capt. Jacqueline Carlin, USAMRIID

Capt. Philip Coyne, WRAIR

Staff Sgt. Alex H. Burge, WRAIR

### Army Commendation Medal

Lt. Col. Ann Altman, WRAIR

Lt. Col. Mark Krause, USAMMDA

Lt. Col. Harold Modrow III, USAMMDA

Capt. Mark Davis, USAMRMC

Sgt. Scott Grinter, USAMRIID

Sgt. Anthony Ortiz, Walter Reed Army Medical Center

### Army Achievement Medal

Sgt. James Henderson, WRAIR

### Order of Military Medical Merit

Lt. Col. Harold Modrow III, U.S. Army Medical Materiel Development Activity, and Lt. Col. Brian J. Lukey, U.S. Army Medical Research Institute of Chemical Defense both received the Order of Military Medical Merit this spring.

### Federal Executive Board Winners

Thirteen individuals from the U.S. Army Medical Research Institute of Chemical Defense received Baltimore Federal Executive Board Awards.

### Gold award winners

Lt. Col. Brian J. Lukey in the Outstanding Supervisor-GS-13 and above category

Dr. Steven I. Baskin in the Heroism category

James H. Clark for Distinguished Public Service Career

### Silver winners

Dr. John H. McDonough for Outstanding Professional-Technical Scientific and Program Support

Tracey A. Hamilton for Outstanding Para-Professional-Technical, Scientific and Program Support

## People Making News

Master Sgt. William J. Cafferky for Equal Employment Opportunity Service

Dr. James F. Dillman III for the Rookie of the Year-Professional category

### Bronze award winners

Jeanne M. Boisseau for Outstanding Supervisor-GS 12 and below  
Maj. Stephen Dalal for Outstanding Professional-Administrative Management and Specialist

Linda J. Reynolds for Outstanding Para-Professional-Administrative Management and Specialist

Phyllis K. Gross for Outstanding Clerical

Jerome Hesch for Outstanding Trades and Crafts

Capt. Patterson Taylor for Community Service

### Elegant science



*Tsokos*

Col. George Tsokos of the Walter Reed Army Institute of Research is this year's recipient of the James Leonard Award for Excellence in Clinical Research. The award was established one year ago to honor a faculty member of the Uniformed Services

University of the Health Sciences who has made important contributions to the study of clinical disease processes. Tsokos earned this recognition for deciphering one cause of immune dysfunction. His elegant studies have demonstrated that forced overexpression of an abnormal component of the antigen (CD3) receptor produced increases in intracellular calcium and protein tyrosine phosphorylation, changes characteristic of the

activated state in human T cells. This leads to increased signaling and an exaggerated immune response.



*U.S. Army Medical Materiel Agency Intern Class 72, back row, with USAMMA and U.S. Army Medical Research and Materiel Command staff.*

### Interns graduate

The U.S. Army Medical Materiel Agency graduated its 72nd intern class June 17. Graduates include: Capt. Jonathan A. Heavner, Capt. Patrick A. Tavella, Capt. Timothy D. Walsh, Sgt. 1st Class Dena G. Crosby, Sgt. 1st Class Alison E. Johnson and Staff Sgt. Paul D. Flemings.

### Sports medicine award granted

Dr. Kent B. Pandolf, a senior scientist at the U.S. Army Institute of Environmental Medicine, received the 2003 Citation Award from the American College of Sports Medicine. Pandolf is the 150th recipient of the Citation Award over the 50-year history of the American College of Sports Medicine, which involves an annual membership of 18,000.

He received the award for his contributions to the fields of ex-

## People Making News

ercise physiology and sports medicine, both as a investigator and a champion of the college's scholarly publications. He has given more than 30 years of service to the American College of Sports Medicine through serving on committees, task forces and the board of trustees.

During his more than 15 years on the college's publication committee, he chaired or served on task forces and committees and served on the editorial boards and as editor in chief of *Medicine and Science* and *Exercise and Sport Sciences Reviews*.

### Pathology proficiency earned



Zaucha

Lt. Col. Gary Zaucha of the Walter Reed Army Institute of Pathology was awarded the "A" Proficiency Designator in the specialty of Veterinary Pathology May 12.

The "A" proficiency designator recognizes Army Medical Department officers who are considered eminently qualified in their specialty. It signifies continued demonstration of exceptional professional ability and significant contributions to the advancement of knowledge in a particular field.

Corps chiefs, consultants, assignment branch chiefs, health services division from U.S. Army Personnel Command and commanders may nominate individuals for award of the "A" proficiency designator.

To bestow the proficiency, each of the AMEDD corps conducts an annual board, and

board results are forwarded to the Surgeon General for approval. Selection is not based on any single accomplishment; the board considers the cumulative record of nominees having served at least 10 years in the particular specialty.



Fourth graders from a local elementary school get a close-up look at the USARIEM's pool used for research.

### Show and tell at Natick lab

The U.S. Army Research Institute of Environmental Medicine hosted 135 fourth graders from the David Mindess School, a local elementary school the lab partners with, on June 13.

The educational partnership lets researchers at USARIEM help Mindess students develop a greater understanding of the scientific method and how the Army contributes to science and medicine.

"The visit went off without a hitch, and all the feedback I received indicated that this effort was a smashing success," said USARIEM Commander Col. John Obusek. "This is another fine example of USARIEM and the Army giving back to the community in which we live."