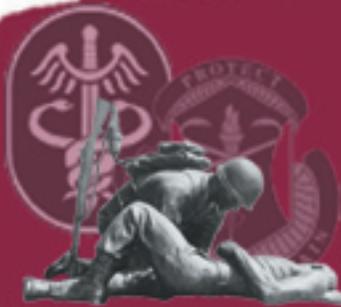


THE POINT

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



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Command claims two of Army's top 10 inventions

Two of the Army's top 10 greatest inventions for 2004 have their roots at units that belong to the U.S. Army Medical Research and Materiel Command.

The Army honored the teams of inventors from the U.S. Army Institute of Surgical Research in San Antonio for its chitosan hemostatic dressing and the Telemedicine and Advanced Technology Research Center from Fort Detrick, Md., for its electronic information carrier at a June 8 luncheon at the Hilton in McLean, Va.

"The ceremony recognizes ... their commitment to improving readiness and the innovative technologies that positively impact Soldiers," said Gen. Benjamin S. Griffin, commanding general of the U.S. Army Materiel Command. The command administers the Greatest Inventions program for the Army. The winning inventions were chosen based upon their impact on Army capabilities, inventiveness and potential benefit outside the Army.

"Uncontrolled bleeding is a major cause of death in combat," said Lt. Gen. Kevin Kiley, commander of the U.S. Army Medical Command and the Surgeon General of the Army in testimony before the Senate appropriations subcommittee in May. "About 50 percent of those who die on the battlefield bleed to death in minutes, before they can be evacuated to an aid station."

Today, Army combat medics in Iraq and Afghanistan use the chitosan hemostatic dressing made from chitin found in shrimp shells that bonds with blood cells to form a clot. Medics began receiving the dressings in 2003.

The dressing was created by researchers at the Oregon Medical Laser Center using a research grant from the U.S. Army Medical Research and Materiel Command. Research-



Gen. Benjamin S. Griffin, right, commander of the Army Materiel Command, and awardee Maj. Tim Rapp, Army Surgeon General's Office, at the June 8 ceremony.

ers at the Institute of Surgical Research, which has robust research efforts in stopping lethal hemorrhages on the battlefield, tested the dressing before it was submitted to the Food and Drug Administration for approval, which it earned in 2002.

In studies performed at the institute, the chitosan dressing effectively stanching a wound that in the first 30 seconds put out more than 300 milliliters of blood. Chitosan was shown to be effective in stopping or reducing bleeding in more than 90 percent of combat cases, without known complications.

The 4-inch by 4-inch chitosan dressing is well suited for the battlefield and a vast

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See "Inventions" page 2

Chitosan**Hemostatic****Dressing**

U.S. Army Institute of
Surgical Research

❖ Anthony Pusateri

❖ Angel Delgado

❖ Col. John Holcomb

Oregon Medical

Laser Center

❖ Kenton Gregory

❖ Lisa Lucchesi

❖ Jeff Teach

❖ Maria Anderson

HemCon

Hemorrhage Control

Technologies

❖ Simon McCarthy

❖ Todd Campbell

❖ Jim Hensel

❖ Col. (Retired)

William Weismann

U.S. Army Medical

Research and

Materiel Command

❖ Col. Robert Vandre

U.S. Army

Medical Materiel

Development Activity

❖ Ronald W. Palmer

Electronic**Information Carrier**

Office of the Surgeon
General

❖ Maj. Timothy Rapp

Telemedicine

and Advanced

Technology Research

Center

❖ Mark Jeffrey

❖ John DePasquale

❖ Tommy Morris

❖ Mitra Rocca

“Inventions,” continued

improvement over gauze and pressure bandages traditionally used to stop extreme bleeding, said Col. Bob Vandre, director of Combat Casualty Care research for the U.S. Army Medical Research and Materiel Command. The dressing’s durability and flexibility make it “soldier proof,” he said. The dressing can withstand blunt force as well as extreme field conditions, including inclement weather, temperature and rugged terrain.

“We haven’t actually run over it with a HUMVEE, but it does stay together well, and that’s an important factor because we need Soldiers to be able to carry it in their packs and run around with it, fall down on it (without damaging it), et cetera” said Dr. Anthony Pusateri of the Institute of Surgical Research.

The electronic information carrier, or EIC, is a wireless data storage device the size of a dog tag that can store up to four gigabytes of data, including medical records, which historically tend to get lost when they exist solely on paper. After learning of the military’s sporadic medical recordkeeping during the 1991 Persian Gulf War, Congress mandated the services improve their process, and the EIC offers one solution.

Using the EIC, providers can securely and wirelessly read and write data within a range of 10 meters of medical devices, such as the Battlefield Medical Information System-Tactical and the Composite Health Care System II-T.

“The EIC provides a patient-centered data flow as the patient moves from node to node within the network. The EIC will have the latest information, so if a node fails or isn’t gathering

data as fast, the EIC will be a reliable source of patient encounter information,” said Maj. Tim Rapp, the project manager for the EIC who works in the Army Surgeon General’s Office.

A wireless EIC also lets the medic read and write data without having to search a Soldier to find it and physically insert it into a personal digital assistant or a laptop.

“We’ve always had a need and a desire to capture what we do on the battlefield, disease and nonbattle injuries, medical surveillance, and providing data to support medical command and control on the battlefield,” Rapp said.

Adding wireless capability as well as a universally available adapter were just two requirements the military wanted for the EIC. The device’s universal physical interface ensures its compatibility with commercial and government off-the-shelf products.

“The EIC will have a ubiquitous physical interface (like a USB port), meaning you will no longer need a proprietary PCMCIA adapter,” Rapp said. “If you don’t have wireless communication or for some reason there’s interference, the handheld will have a port for you to simply plug it in. You’re tethered to an 8- to 12-inch chain (if the EIC is around the neck with the dog tag), but at least you have that as a backup and there’s no adapter.”

During the ceremony, each of the winning teams received a glass trophy and a certificate “in recognition of team commitment to improving readiness through innovation and developing new technologies that positively impact soldiers.”

Progress steady with biodefense vaccines

Scientists from the Public Health Agency of Canada, in collaboration with the U.S. Army Medical Research Institute of Infectious Diseases, developed vaccines against the Ebola and Marburg viruses and the Lassa virus that have been shown to be effective in non-human primates.

In a study published in this month's *Nature Medicine*, Canadian researchers Dr. Heinz Feldmann and Dr. Steven Jones of PHAC's National Microbiology Laboratory and Dr. Thomas Geisbert of USAMRIID report that the vaccines have proven 100 percent effective in protecting monkeys against infection from these often deadly viruses.

Monkeys are known to develop hemorrhagic fever symptoms that are similar to those observed in humans infected by these viruses. Demonstrating that these vaccines are safe and effective in monkeys is a promising indicator of their real potential for use in humans.

"When you see the tragedies these viruses cause, it's very frustrating that we can't do more to help people," said Feldmann, who, along with Jones and others from PHAC, has been providing on-site rapid diagnostic support to the recent Marburg outbreak in Angola. "It'll be some time before we can use these vaccines in the field, but it's satisfying to know that we're getting closer."

Geisbert said this is the first vaccine system, or platform, that has protected nonhuman primates from both Ebola and Marburg.

"In addition, the vaccine targets dendritic cells, which are the same cells that Ebola and Marburg attack," Geisbert said. "These cells are also important in generating a protective immune response. So the vaccine goes exactly where we want it to go."

The study describes how Canadian researchers developed the vaccines by replacing a surface protein in an animal pathogen, called vesicular stomatitis virus,

with a surface protein from either the Ebola or Marburg viruses. Following extensive work, including trials with mice and guinea pigs, the PHAC researchers collaborated with USAMRIID to prove their efficacy in non-human primates. This research was supported by a grant from the Canadian Institutes of Health Research.

The research on Lassa fever vaccine, published in the journal *PLoS Medicine*, could eventually lead to development of a vaccine for human use. Lassa fever is common in parts of West Africa, where it causes a significant amount of death and disability among the population. Currently there is no preventive measure available to halt the spread of Lassa fever, other than rodent control in affected areas. The disease is transmitted to humans from rodents that carry the virus.

The Lassa virus that causes the disease is considered a potential agent of bioterrorism.

Principal investigators Geisbert, Feldmann and Jones developed the vaccine using a non-pathogenic form of vesicular stomatitis virus, or



The USAMRIID team who conducted the vaccine studies in nonhuman primates are, left to right, Dr. Lisa Hensley, Dr. Elizabeth Fritz, Dr. Tom Geisbert and Joan Geisbert.

See "Vaccines," page 4

Combating breast cancer a team effort

“If you end up writing research proposals for questions we already have answers to, then you’re getting researchers’ last idea, not their next idea.”

**—Dr. Rosaveth Moss Kanter
Harvard Business School**

Much has been done, but there’s much more to be done.

Such was the prevailing sentiment at the 2005 Era of Hope Meeting for the Department of Defense Breast Cancer Research Program held June 8-11 in Philadelphia.

Scientists, clinicians and advocates gathered for those four days to report research results, through poster and conference sessions, to explore controversial issues, forge alliances with other researchers and advocates, and challenge each other in finding a cure for breast cancer.

“This meeting will tell us where we are with breast cancer and where we need to go,” said Fran Visco of the National Breast Cancer Coalition. She is also chair of the 2005 Breast Cancer Research Program Integration Panel and co-chair of the technical planning committee for this conference.

This year’s conference was the fourth held since the DoD Breast Cancer Research Program began in 1992. Since its inception, breast cancer advocates and survivors have participated in the research proposal review

to help identify the best ideas that deserve funding, said Col. Janet Harris, director of the U.S. Army Medical Research and Materiel Command’s Congressionally Directed Medical Research Programs since April.

Advocates’ participation is deliberate: their lobbying efforts with Congress for additional funding for breast cancer research created the program.

“This keeps me alive and kicking,” said Sandy Blank of the Florida Breast Cancer Resource Network.

At the meeting, advocates for breast cancer research and education conveyed their message that “time is of the essence” to researchers—in person and on conference message boards. They asked scientists to come up with less-toxic treatments, targeted therapies and better diagnostics and challenged the healthcare system to treat every woman facing the disease, no matter her ability to pay.

Some scientific presentations were so complex that many advocates said they needed translators to understand

See “Hope” page 5

“Vaccines,” continued

VSV, as a carrier—into which they inserted genetic material from the Lassa virus. The team immunized cynomolgous macaques with a single dose of the Lassa vaccine. Four weeks later, the animals were experimentally infected with the Lassa virus. The vaccine completely protected the monkeys, which developed no signs of clinical illness.

“This is the first vaccine platform shown to completely protect nonhuman primates from Lassa virus,” said Geis-

bert. “We are hopeful that the VSV strategy, which we have successfully demonstrated for Marburg, Ebola and now Lassa virus, could have utility against other hemorrhagic fevers as well.”

A vaccine against the Lassa virus could help to control outbreaks of the disease in Africa and protect healthcare and laboratory workers. Previous attempts to develop Lassa vaccines were partially successful, but none completely protected nonhuman primates against le-

thal doses of the virus, according to the study’s authors.

While these early results are promising, further testing will need to be conducted. Some issues that must be resolved before the vaccine can be tested in humans are the safety of the VSV virus, how long the vaccine protects after the shot, and whether it is active against different genetic strains of the Lassa virus.

*—By Caree Vander Linden,
USAMRIID*

“Hope,” continued

the message, but they attended every session to glean more information.

“The more I hear, the more I understand. I may not grasp it like a chemist or a biologist, but some of them do speak at levels that I can understand,” said Ellen Feiler, an 11-year breast cancer survivor and health education director for the Florida Department of Health.

When two-time survivor Carolina Hinestrosa was diagnosed with cancer for the second time, her doctor said science was a decade away from having answers to who gets it.

“We don’t know the answer to the question of who is at risk,” she said. “It’s depressing when you see there hasn’t been much progress on prevention or when you see that, though there is less invasive surgery, we’re trading one type of radiation for another, this chemo over that.

“We’re starting to see results since the last Era of Hope (in 2002), so I am hopeful, but it’s been 10 years, and I want to ask: What have you done for my daughter?” she said.

Her question of who will get breast cancer was addressed in several sessions at the conference, though none could provide definitive answers. While the exact causes of breast cancer are unknown, the disease is thought to involve a combination of genetic, hormonal, dietary and environmental factors, according to the American Cancer Society.

But there’s no one factor that predicts whether a woman will get breast cancer.

“I don’t think we’re ever going to be able to say ‘Aha! This is what causes breast cancer,’ but we’ll be able to say this, plus this, plus this may cause it,” said Dr. Christine Ambrosone of the Roswell Park Cancer Institute.

Keynote speaker, Dr. Rosaveth Moss Kanter of Harvard Business School, said the program works because advocates are involved.

“I’m delighted that (in the Department of Defense Breast Cancer Research Program) people who have the problem but don’t have the answers interact with those who don’t have the problem but are looking for the solution,” she said. The “so-called dumb question” that may be asked by a layperson may “open the



Benjamin Franklin made an appearance at the Era of Hope Conference in Philadelphia and met Col. Janet Harris, director of the U.S. Army Medical Research and Materiel Command’s Congressionally Directed Medical Research Programs.

mind of an innovator who is tuned into finding a solution.”

The program focuses on innovation, supporting new directions and encouraging the pursuit of novel and untested ideas, and has a history of funding innovative research. The BCRP has supported a unique award, the Innovator Award, for 12 creative thought leaders so they can “fly” and not worry about the system and getting their research funded, Visco said.

The standard process for applying for research dollars forces researchers to have the answers to their research questions in the form of preliminary data before ever submitting a proposal; however, funding high-risk, high-gain research is a hallmark of the DoD Breast Cancer Research Program.

“If you end up writing research proposals for questions we already have answers to, then you’re getting researchers’ last idea, not their next idea,” Kanter said.

One attendee said she’s grateful for the program’s focus on innovation.

“At the last Era of Hope, I had a shiny, bald head. I believe I am alive today because of innovation, of growing outside the boundaries of what is possible,” she said.

Robots to extract wounded for medics

When a Soldier is wounded and exposed to enemy fire, the first priority is getting him or her to safety. An Army unit at Detrick is exploring how robots can extract casualties to help reduce the risk to the medics and Soldiers who might otherwise be required to extract that wounded Soldier.



Daniel Theobald, president and chief technical officer of VECNA, operates the Battlefield Evacuation and Recovery humanoid robot in a simulation of a casualty extraction.

Gary Gilbert of the Telemedicine and Advanced Technology Research Center first started looking at the robot option when he married his experience as a company commander for a ground ambulance company in Germany with his doctoral training in artificial intelligence and robotics.

“If you look at the data on medics awarded the Medal of Honor, most of those killed in action were in the process of rescuing or caring for wounded Soldiers under fire,” he said. “The same is true when one Soldier helps another injured buddy. It seemed to me that using robots could help reduce those losses.”

His idea of robots performing casualty extractions today makes more sense than ever, he said.

“With the increased threat of weapons of mass destruction, chemical and

biological weapons, booby-trapped IEDs (improvised explosive devices) and urban combat, medics are ever more likely to be exposed to risks,” Gilbert said. “This increased exposure might not be necessary if robots could be used in some of those dangerous situations.”

The Army has also mandated that one-third of its vehicles be unmanned by 2015, and Gilbert believes robotic extraction platforms fit this bill.

“If the medics don’t do their share (to move toward unmanned vehicles), then more of that third falls on the (Army) combat and other combat support elements,” he said.

Five of the robot program’s prototypes were put through their paces Aug. 29 in a field near TATRC. The Robotic Evacuation Vehicle, used to evacuate patients from the medic to a treatment site, and the Robotic Extraction Vehicle, used to move a patient from the point of injury to the medic, both let a medic use remote control to get a patient out of harm’s way.

“Right now this technique requires the wounded Soldier to roll onto a sled before medics or a larger robot can drag him back to safety,” Gilbert said.

The Battlefield Evacuation and Recovery humanoid robot’s goal is to safely pick up an injured Soldier on the battlefield, and wouldn’t require the Soldier to roll onto a sled.

The Robotic Emergency Medicine and Danger Detection robotic vehicle is being designed to respond to civilian natural disasters and acts of terrorism in rural areas where medical resources are limited, but the Army is looking at it as well. The vehicle uses items like an unmanned aerial vehi-

Students share summer lessons



Brigham Young University senior T.J. Bliss describes his work on nematodes and chemical insecticides to Col. Charles McQueen, commander of the Walter Reed Army Institute of Research.

On a hot August evening, about 140 student scientists attended the closing ceremony for the 2005 U.S. Army Science and Engineering Apprentice program at the National Academy of Sciences building in Washington, D.C.

Proud parents, mentors and guests enjoyed refreshments while they browsed mounted posters describing

the summer's research projects.

SEAP students stood by their work, explaining what they did in the lab and what results they gleaned. After the posters, senior Army, NASA and National Institutes of Health supporters of the program congratulated the participants in short talks presented in the auditorium.

Dr. John A. Parmentola, the Army's Director for Research and Laboratory Management, said he was surprised at "the totally unexpected level of sophistication" indicated by the posters.

He was very impressed at the students' "capability, their knowledge, and their ability to work in teams to address a scientific problem."

Parmentola called the SEAP an in-

See "Students" page 8

"Robots," continued

cle, a casualty extraction litter payload system, robot scouts, a hazardous gas and radiation detection system and a remote casualty location device.

Another approach uses unmanned aerial vehicles for biosurveillance and medical response command and control and imaging. A final prototype uses robot controller devices mounted on an M4 rifle or a glove hand signal robot controller.

There are challenges with robotic evacuation, Gilbert said, because at the heart of it, they're machines, not humans.

"They don't deal with the unknown very well," he said. "As sophisticated as their programs are, they still don't deal with

plans that fail when confronted with unforeseen problems. Right now you could not be sure that a bunch of robots put out on a battlefield with human Soldiers might not accidentally run over or bash into their human buddies."

Replacing a medic with a machine invariably leads to the question of a robot's ability to comfort a wounded Soldier.

"We've got to maintain the psychology and the warmth of the human touch for these patients if we are going to use robots," Gilbert said. "We have installed a telemedicine screen on the ceiling of the (evacuation vehicle's) patient compartment, so when the patient is being transported, they can actually see and talk to a human medi-

cal provider and that provider can give some level of support and care, even if they're not physically present. For now, however, we will continue to have human attendants on board, even 'unmanned vehicles' whenever patients are being transported."

Regardless of the challenges, Gilbert is determined to push forward.

"I hope that before I retire I see that concept adopted by an Army Acquisition Program and some of these capabilities make it into the field," he said. "The ultimate success would be to see these robots actually save Soldiers' lives while also preventing unnecessary losses of our brave medics."

Enzymes interdict nerve agents

Plasma, goats and plants may one day hold the key to protecting warfighters—and the public—from nerve agents.

Boosting the amounts of an enzyme called butyrylcholinesterase, normally present in small quantities in blood plasma as detoxifiers, can interdict nerve agents when they enter the

bloodstream so the agents can't reach their targets.

Knowing this, researchers for 20 years have been finding ways of producing large amounts of the enzyme they call a “bioscavenger.”

“The bioscavenger is be-

ing tested against all known nerve agents,” said Col. Michelle Ross, former deputy commander of the Army Medical Research Institute of Chemical Defense. “The objective is to develop a pretreatment that is broad spectrum and will work against all known nerve agents.”

So far the USAMRICD researchers, working jointly with the Walter Reed Army Institute of Research have come up with three versions of the bioscavenger. The most mature, they hope, will transition for funding under Project BioShield, the president's 2003 initiative to encourage companies to develop bioterrorism countermeasures.

The bioscavenger approach is revolutionary because it works by preventing and destroying the nerve agent entering the body before it can reach its physiological target, Ross said.

The enzyme also lets the warfighter



Though today's chemical protective gear is effective, asking a Soldier to wear it while doing his or her medical job—especially in the heat—has its challenges.

See “Enzymes” page 9

“Students,” continued

vestment for both the Army and the nation. “Obviously, their future is America's future,” he said. “We all believe that science, math and engineering are going to play a more and more critical role in the future, in terms of our national security needs as well as our economic competitiveness.

The U.S. Army Medical Research and Materiel Command is one of the Army's most active supporters of SEAP. Col. Raj Gupta, director of research plans and programs at headquarters, USAMRMC, is the Army manager of the

program.

The command's Walter Reed Army Institute of Research is the lab where many of the program's students get their first taste of laboratory research.

Dr. Barbara Alving, acting director of the National Center for Research Resources at the National Institutes of Health, and director of the Women's Health Initiative, added her congratulations to the students. She reinforced the importance of young women following through on their ambitions for careers in science, noting that such careers are challenging

and competitive for both men and women.

Alving is a key supporter of the Gains in the Education of Math and Science, or GEMS, program for high school students at the Walter Reed Army Institute of Research.

“All in all, the program's a good deal,” said Tia Lyles-Williams, who just graduated from Howard University and hopes to go to medical school and become a surgical oncologist.

—By Chuck Dasey, U.S. Army Medical Research and Materiel Command Public Affairs

“Enzymes,” continued

keep fighting.

“(Current) nerve agent antidotes all enhance survival and, in the best cases, reverse the toxicity of exposure, but they cause a performance decrement, and the recipient becomes a casualty (that needs to be) evacuated to a military treatment facility,” she said. “What the combatant commander wants is a warfighter to continue the mission, not be a casualty, not be a logistical burden to the health care system but keep on trucking.”

Use of the bioscavenger is similar in concept to the use of gamma globulin shots that travelers have taken for more than 50 years to boost their immunity.

“It’s a passive protection,” said Dr. David Lenz of the USAMRICD. “You will be protected as soon as you get the shot and achieve adequate plasma levels if you’re subsequently exposed to ... nerve agents

The version researchers hope to get Food and Drug Administration approval for first is the plasma-derived bioscavenger.

Made from outdated human plasma, butyrylcholinesterase is extracted and purified by a process perfected at the WRAIR.

Baxter Healthcare Corporation received a contract April 6 from Dynport Vaccine Corporation LLC to produce batches of the plasma-derived bioscavenger to undergo a preliminary human clinical safety trial. If these trials are successful, the FDA may grant investigational new drug status to the bioscavenger, then the Department of Health and Human Services can move it toward full FDA licensure for BioShield.

Bioscavenger’s second generation form uses recombinant technology to create the enzyme. Nexia, a Canadian company, created genetically altered nanny goats that produce the enzyme in their milk. Their offspring also inherit that ability. A liter of the goats’ milk may contain as much as 1 to 3 grams of the enzyme.

Because it comes from a goat and not a human, the enzyme may be a little different in terms of its structure, said Ashima Saxena of the

WRAIR.

“The question is whether the material works differently because of these slight differences,” she said.

While researchers are determining if the goat-derived bioscavenger is as effective as the human-derived form, they’re also exploring a third approach to harvesting bioscavenger. They’re interested in a catalytic form of the bioscavenger whose molecules bind not just one on one with nerve agents as the current bioscavengers do, but one that would speed up the breakdown of the nerve agent in the bloodstream and is able to do this again and again.

“When you have the situation where you have one-to-one binding, a large amount of the enzyme is needed for a small amount of nerve agent,” Lenz said. “If you can get something that can continuously destroy nerve agents for as long as its in circulation, you can use less of it and improve its ability to protect.”

Command hosts psychology symposium

The U.S. Army Medical Research and Materiel Command sponsored the 41st annual International Applied Military Psychology Symposium in Washington, D.C., May 22-27. This was the first time the meeting was held in the United States. The conference consisted of 31 presentations focused on supporting and enhancing mental health and well-being of military personnel throughout

the deployment cycle. Other topics included leader development, psychological stressors in international operations, and psychological assessment. There were more than 60 participants from 28 nations.

The Walter Reed Army Institute of Research hosted the conference and showcased recent findings on the Land Combat Study, psychological screening and family well-being study.

Seat discomfort in operations addressed

A study of Army aircrew life support equipment effectiveness in Operation Enduring Freedom and Operation Iraqi Freedom from the Army Center for Lessons Learned identified aircrew discomfort as a leading cause of loss of mission effectiveness. Aviators complained of sore buttocks, lower back pain and numbness and loss of sensation in the lower extremities and feet.

All of these conditions were reported as being severe enough to distract aviators from their appointed missions.

The seats used in Army aviation platforms are not optimized for prolonged missions. In OEF and OIF, Army aircrews are conducting missions of more than eight hours. During this time, Soldiers are confined to their seats with little opportunity to change position. This is in contrast

muscle fatigue, tissue compression, ischemia and errant nerve function, such as tingling, burning and pain, which distract pilots from flying the aircraft.

“We lose a lot of focus on the mission because we’re paying so much attention to the discomfort and fatigue brought on by the seats,” said one individual in a Kiowa Warrior Attack Battalion.

In the early 1990s, researchers conducted a comprehensive study of the seating problems associated with flying the AH-64 and UH-60. As with the more recent field surveys, pilots indicated that discomfort and pain onset would generally begin between two to four hours, with the effects lasting for 24 hours and, in some instances, for more than 48 hours.

A two-pronged research approach by the U.S. Army Aeromedical Research Laboratory will systematically evaluate seat cushion comfort and crashworthiness. The lab recently acquired a seat pressure mapping system that can measure the pressure between the seat surface and the pilot. This technology has been used in other aircraft seating studies and has proven effective at objectively differentiating between comfortable and uncomfortable seating conditions.

With this new equipment and the use of other in-house metrics (i.e., posture measurement, electromyography, subjective evaluation of comfort and flight performance), researchers will be able to evaluate alternative seating for comfort during extended missions.

Because the seats are uncomfortable, aviators are using blocks of foam rubber and cushions sent from



Paul St. Onge prepares an aircraft seat cushion for impact testing.

to typical training missions where Soldiers remain in their seats for two to three hours at a time.

Uncomfortable seating can lead to

See “Seats” page 11

People in the News

Researcher inducted into All American Hall of Fame

When she answered her office phone this spring and Dick Enberg—the voice of *The Masters*—was on the other end, Maj. Claudia Henemyre-Harris couldn't believe her ears.

"At first I thought it was a recording. I've had the president call me and different people, but it's always been just a recording. But then he said my name and I said 'Wait a minute, this is the real guy,'" said the researcher from the U.S. Army Medical Research Institute of Chemical Defense.

Enberg was calling to tell the Army researcher that because of her achievements in college athletics and academics, she had been chosen for induction into the Academic All-America Hall of Fame. Enberg is the spokesperson for the awards, which have been sponsored by the College of Sports Information Directors of America since 1988. The organization inducts four to six past college All Americans every year to recognize them for excelling in their professions and contributing to their communities.

To be considered for the Hall of Fame induction that took place July 6 in Philadelphia, Henemyre-Harris

set the groundwork in her undergraduate years. Playing softball, soccer and basketball at Western Maryland College, in Westminster, Md., Henemyre-Harris majored in biology and German while fulfilling the requirements of her Army ROTC scholarship.

Her GPA? 3.74. That earned her All American awards four times: three for softball and once for soccer.

"Ask my roommate. I was never in my room," she said. "They actually did a little senior profile on me and the title was 'Where's Claudia?' because no one could ever find me because I was always running around. And I'm in the Army now, so it's the same thing, running around."

The key to Henemyre-Harris' success in college was making the most of her time.

"As long as you can study on the bus and sleep on the bus, you're okay. I would take my pillow with me. I would sleep on the way there so I would be rested for the game, and after the game I'd do my homework on the way back," she said.

The native of Havre de Grace, Md., said her thrice-weekly Army workouts with the ROTC cadets in the morning



Claudia Henemyre-Harris during her soccer days, above, and today, below, an Army researcher and member of the All American Hall of Fame.



See "All American" page 12

"Seats," continued

relatives to delay the onset of soreness and loss of sensation. However, the effect of these alternate seat cushions on the crashworthiness of seating systems is unknown. Changing the seat cushion can alter the occupant's biodynamic response and the performance of the overall seating system in a crash.

Currently, the only means of verifying that a new seat

cushion will not degrade the overall system performance is to requalify the entire system, a time-consuming and costly process.

USAARL is also developing a low-cost, repeatable component test for evaluating the effect of candidate seat cushions on overall seating system crashworthiness.

The project will include cooperative work with other

branches of the Department of Defense and the Federal Aviation Administration, all of whom have an interest in its outcome. Airframe program managers of the U.S. Army Aviation and Missile Command will incorporate study findings to improve future seating condition designs and increase Army aviator endurance in rotary wing aircraft.

—By USAARL

People in the News

**Baseball outing**

The crew from the Health Facility Planning Agency took in a Washington Nationals – Los Angeles Dodgers baseball game as an organizational evening out Aug. 2. The Nationals lost 5-4.

“All American,” continued

were no breeze.

“I’m the goalie and the catcher, I can’t run. I have good reaction time. I’m a good base runner because I know how to steal bases but I don’t have God-given speed,” she said. “I do have the stamina. I think that’s why I can catch two double headers, and it’s no big deal.”

Though she’s not a sprinter, she’s been running hard her whole college and Army career. After graduation from Western Maryland, which was renamed McDaniel College in 2002, Henemyre-Harris took an education delay and went to the University of Cincinnati’s College of Medicine to earn her doctorate in molecular developmental biology. Once she got to graduate school, competitive sports took a backseat to the “ticking clock” for earning her degree, but she still found time to play in the city’s soccer, softball and basketball leagues.

“If I sit down too long, I just fall asleep,” she said.

Henemyre-Harris first be-

came eligible for Hall of Fame status in 2002, 10 years after her graduation. A panel picked her as one of the top 25, but she didn’t make the final cut.

“Losing out to (NBA great) John Stockton made sense,” she said, with a laugh.

Henemyre-Harris said she was amazed that she did make this year’s cut and her name was added to the list of 83 previous inductees.

During the ceremony in Philly, she was inducted along with the Chicago Bulls’ and Notre Dame’s John Paxson, UCLA football player and now district court judge Cormack Carney, sports broadcaster and College of New Jersey alum Tracy Warren, and Cornell and NHL goalie Kenneth Dryden.

“It’s just unbelievable. It was very humbling that I’m up there with people who are in the NBA, the NHL Hall of Fame,” she said. “It just goes to show what good educators and coaches I had over the years to even have that kind of background to be considered for

this kind of award.”

Dryden took time to talk shop with Henemyre-Harris at the event.

“That was really cool just to have a conversation with someone who’s in the NHL Hall of Fame and talk about what it’s like to be a goalie,” she said.

Getting to meet Enberg and hearing him narrate a video that highlighted all the inductees gave Henemyre-Harris a thrill during the ceremony.

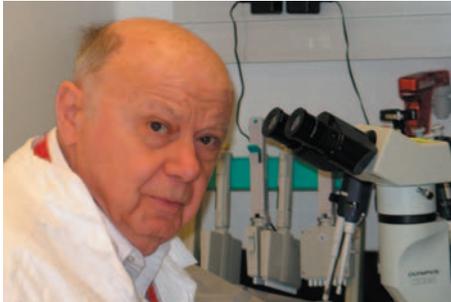
“He just did Wimbledon last week, and here he is talking about me,” she said.

When it was her turn to give a short speech, Henemyre-Harris adapted a well-known passage to thank her family for their support.

“I used ‘Love is patient, love is kind’ from First Corinthians for my speech. I read part of that and I interrupted it and said, ‘Love is when your older brother teaches you how to catch ground balls’ and included examples from the rest of my family.”

Researcher's 50-year career celebrated

The Brooklyn Dodgers beat the Yankees in the World Series, Eisenhower was president and Hawaii was still four years from becoming the 50th state when Dr. Leonard Binn began his career in 1955 as an infectious disease researcher for the Army.



Dr. Leonard Binn began his career in 1955 as an infectious disease researcher for the Army.

To honor five prolific decades at the Walter Reed Army Institute of Research, June 7 was deemed “Dr. Leonard ‘Lenny’ N. Binn Day” for the senior virologist whose work has led to life-saving vaccines for both warfighters and civilians.

The 77-year-old researcher “is firmly in an elite class of medical giants,” said Col. Charles McQueen, commander of the Walter Reed Army Institute of Research.

Binn Day was celebrated by an audience full of past and present coworkers, friends and family—including his wife of 25 years Ruth, his children, siblings and cousins.

“This is truly one of the most remarkable events of my life,” Binn said.

Working toward vaccines for Rift Valley Fever, Chickungunya, smallpox, adenovirus, Western equine encephalitis and canine kennel cough, Binn’s most celebrated contribution was the invention of the parent of the hepatitis A vaccine currently marketed by Glaxo-SmithKline.

“Many of his achievements are intertwined with this great institute’s,” said Maj. Stephen Thomas of the institute’s Department of Virus Diseases.

Born in Lithuania in 1927, Binn’s parents moved to New York City the following year. After receiving degrees

from New York University and the University of Michigan, and spending one year and three months in the Army, he joined the Walter Reed Army Institute of Research in February 1955. For the next half century, Binn established himself as a researcher of both human and animal viruses.

“When I saw (in his record) that he had 1.25 years of military service, I think we can all agree that he has served much more than that for the military,” said Col. David Vaughn, a former chief of the Department of Virus Diseases.

At the institute, Binn is known for grooming junior military and civilian scientists and said that helping young people “is truly rewarding and allows us to ensure our work will continue.”

“I think I can speak for every infectious disease fellow or new PhD that worked in virus diseases that Dr. Binn always had the time for you, always a kind word, never failed to find a reference for your work and always led you down the correct path of scientific discovery,” said Col. Timothy Endy, director of the Division of Communicable Diseases and Immunology.

Many speakers remarked on Binn’s modesty, and he was quick to share credit for his accomplishments with his coworkers.

“I’m grateful to have worked with magnificent people and to accomplish our goals. We’re a great unsung story: what we do to keep Soldiers healthy and provide treatments for them,” Binn said, naming many of his former supervisors as well as some of the 16 commanders he served under at the Walter Reed Army Institute of Research.

Quoting a past department chief, Maj. Stephen Thomas said Binn’s work on the hepatitis A vaccine exemplifies two concepts: “Chance does, in fact, favor the prepared mind, and Dr. Binn was always prepared.” In fact, more than one

See “Binn” page 13

People in the News

Couple finds harmony at home and a high-containment laboratory

The formless, electric blue “spacesuits” worn in high containment laboratories hardly seem like they’d attract members of the opposite sex. But two researchers at Fort Detrick were able to see past the plastic worn in the biosafety level four lab and find their “soul mates.”



Dr. Tom and Joan Geisbert

Dr. Tom and Joan Geisbert have collaborated personally and professionally for the last 20 years at the U.S. Army Medical Research Institute of Infectious Diseases.

The institute has seen its share of couples who work there. In fact, the Geisberts can quickly rattle off five other husband-and-wife teams who have worked at the institute

that conducts basic and applied research on biological threats resulting in medical solutions to protect servicemembers. Spouses at the institute never work for each other, but the Geisberts do work on the same lab team.

“Working together is normal,” Tom said. “I can’t imagine not working together because we always have.”

Joan, a biological laboratory science technician—“In short, a BLT,” she said—started working at USAMRIID in 1974, fresh out of high school. Adept in the lab, she moved from biosafety level three labs into the lab with the deadliest pathogens when her then-boss, Dr. Peter Jahrling, gave her the chance.

“He taught me how to do a lot of different things and had the confidence in me to tell me to go off and do something, and I’d do it,” she said. Today, she’s the senior alumna and “Jack of all trades” for the “hot” suite that she supervises,

See “Couple” page 14

“Binn,” continued

speaker at the event remarked on Binn’s enormous library of journal reprints, which are always available to researchers.

“If you spend any significant amount of time with Dr. Binn, you will learn something,” Thomas said.

After learning that the medical literature said the hepatitis A virus could be inactivated by formalin and that the virus could be cultured, Binn applied these discoveries to begin developing a hepatitis A vaccine in 1979.

Binn was able to grow the virus in cells that could be used for manufacturing and also develop an animal model for testing vaccine candidates. Throughout the quest for the vaccine, he remained “a scientific and intellectual presence

in the hepatitis A project as it entered into human use trials,” Thomas said.

Binn helped negotiate an agreement with SmithKline Beecham—predecessor of GlaxoSmithKline—and trained that company’s scientists on how to test the vaccine. In February 1995, the vaccine was licensed and now protects Soldiers who deploy to regions where the virus lives. It also saves the lives of children who live in those areas.

For his efforts with the vaccine, Binn earned an Army Research and Development Achievement Award.

“You inspire us,” said Col. Wellington Sun, chief of the Department of Virus Diseases.

Binn’s research today focuses on re-creating a vaccine

to prevent adenovirus, a respiratory disease prevalent in training centers for military recruits.

“Dr. Binn’s lifetime of contributions to the WRAIR and U.S. Army are unprecedented in their scope, significance and diversity,” Thomas said. “His tireless efforts in vaccine discovery and development have directly translated into improved military medical preparedness.”

Despite receiving the Decoration for Exceptional Civilian Service during Binn Day and spending half a century at the Walter Reed Army Institute of Research, the researcher has no firm plans on retiring.

“We won’t let him,” Endy said. “He’s too valuable.”

“Couple,” continued

ensuring that every piece of equipment works and every person in the suite has skills as sharp as hers.

A microbiologist, Tom arrived at the USAMRIID in 1985 while he was pursuing his master’s degree and then his doctorate from the Uniformed Services University of the Health Sciences. By 1988, he was working with Jahrling, Joan and some of the world’s deadliest hemorrhagic fever viruses: Ebola, Marburg and Lassa fever.

“Joan taught me everything I know about how to wear a space suit—the whole nine yards,” Tom said. “Now they’re building more of these labs, but it’s so unique it’s very difficult to go out (and get the skills) to function in a level four.”

Married since 1993, as youth the two attended the Frederick Church of the Brethren and recall when town was rural. “They called it ‘Fred-neck’ back then,” Tom said. Both were previously married, and each had two sons from those unions.

The two also share personality traits that make them compatible for working in a high-containment laboratory—and being married to each other. An independent streak, the ability to work for long periods hearing nothing but air rushing around in the spacesuit and the skill of mind reading are all preferred traits for working long hours in a hot suite, Tom said.

“There are physical limitations to the number of people you can put into a level four. You put in more people, you endanger the people that are

there,” he said. “And when you work a long time in a level four, you communicate with each other without talking.”

Jahrling said that an outside observer watching the suite’s four-person team in action would never suspect the Geisberts were married.

“It would look like two people doing their jobs,” he said. “It looks like a well-seasoned, practiced, professional team.”

Though the couple said that working in the lab is the fun part of what they do, they’re always aware of the threat the viruses pose.

“When you watch what these diseases do, I think it makes you even more conscious of what happens in a lab,” Tom said. “I’m always worried that something could happen to the people in my inner circle. They’re my best friends.”

The Geisberts’ focus and enthusiasm are the reasons why they’ve thrived in the hot suite, Jahrling said.

“It’s like driving a car on the freeway; you’d best not nod off,” he said. “You can’t afford to have a bad day. There’s an edge and an adrenaline rush every time you go in there. That’s part of the allure.”

What the Geisberts ultimately share are the ups and downs of working toward finding vaccines for the hemorrhagic viruses that devastate African villages and can potentially be used as biological weapons.

“In this field there are a lot more failures than successes, because these agents are level four for a reason. A lot of these agents were discovered in the

‘60s and ‘70s. If it had been easy to develop vaccines and countermeasures, it would be done by now,” Tom said. “You live these failures together.”

Jahrling, now with the National Institute of Allergy and Infectious Diseases, likens the early work with those viruses to walking toward a mountain in the distance.

“You knew you were going in the right direction, but it didn’t really seem like you were making much progress for a while,” he said.

Recent years, however, have brought more good news.

“I remember the rush, that feeling of accomplishment, after you’ve watched so many failed studies and you know that you’re finally getting there,” Tom said. “Those are the things that Joan and I share.”

Jahrling said that because the couple has the same goals in life, they balance their home and work lives.

“I would imagine there’s not much discussion about ‘What do you mean you’ve got to go to the lab today? I thought we were going to pick out kumquats,’” he said.

The two have no firm plans to leave the institute, but if Tom leaves, Joan will follow because they are “a package deal,” she said.

“I think they’re absolutely hand in glove,” Jahrling said. “They are the perfect match. I think they do what all married couples do: they complement each other’s virtues and capabilities and pick up the slack for each other and motivate each other.”

Military idol

Capt. Scott Willens of the U.S. Army Medical Research Institute of Chemical Defense moved on to the final competition of the Military Idol contest, which will be held at Fort Gordon, Ga., Oct 17-22.



Capt. Scott Willens

Military Idol is a pilot program created this year in affiliation with the popular FOX TV series “American Idol.” Performances by the 35 final contestants for Military Idol will be aired live on The Pentagon Channel. Online voting will determine the competition’s winner.

“The Directorate of Community and Family Activities actually bought the rights from American Idol, who helped establish rules and guidelines for us to follow,” said Debbie Lewis, director of marketing for Morale, Welfare and Recreation at Fort Myer, where Willens competed.

“All of the contestants have done extremely well,” Lewis added. “It’s wonderful to work with such talent.”

Willens, a veterinary pharmacologist and avowed American Idol fan, stuck to the pattern of performing classic rock tunes. He brought the

audience to its feet, singing and clapping along, as he performed his version of “Don’t Stop Believing” by Journey.

“It has a lot of energy and momentum and people know it,” Willens said of the song. “Classic rock is still popular after 30 years. You can’t go wrong with it.”

Willens’ fans also made the trip to Myer to see him perform.

“He’s very in touch with his music, and so far he’s the only one who’s gotten the crowd involved,” said Staff Sgt. Jennifer Dvorak, who works with Willens at MRICD and heard Willens sing for the first time last year during the unit’s organization day activities. “He’s wonderful,” she added.

At the competition, Willens thanked his unit, co-workers and other supporters and said that he was honored to be chosen as one of the three contestants to move on.

“I’m a fool for American Idol, but in real life my wife is my idol,” he said. “She’s always been there for me.”

Willens’ wins brought in \$500 for USAMRICD’s morale, welfare and recreation fund, and \$500 for himself. The winner of the national competition receives \$1,000, an appearance on American Idol and becomes the first Military Idol.

To view the status of the competition on line, click on www.militaryidol.com.

—Adapted from an article in APG News

People in the News

Schoomaker now commander

Brig. Gen. Eric Schoomaker took command of the U.S. Army Medical Research and Materiel Command transfer at Fort Detrick, Md., on the hazy morning of July 7. Col. James Romano Jr., who served as acting commander since April 15 when Maj. Gen. Lester Martinez-Lopez retired from the Army, returned to his job as deputy commander for USAMRMC.

“Jim, a couple months ago I was here to put you in command, I said ‘When in command, take charge.’ You did,” said Lt. Gen. Kevin Kiley, commander of the U.S. Army Medical Command and the Surgeon General of the Army. “We could not afford to have someone simply hold the reins and wait for General Schoomaker. As the deputy, you have a lot of work to do, so get to work.”

Romano said the Soldiers on the parade field “remind us all why there is an MRMC. MRMC exists to deliver medical solutions for you, for your comrades. From April 15 until today, we moved forward. We never quit; we always placed the mission first.”

Kiley said he was “absolutely thrilled” that Schoomaker agreed to take on the worldwide missions of the U.S. Army Medical Research and Materiel Command and thanked him for taking on “a very demanding—both intellectually and personally demanding—assignment.”

The newly installed commander said the command’s

practices are keeping pace with the Army’s.

“The Army is substituting information and knowledge for mass on the battlefield. MRMC is as much about knowledge and ideas as it is about devices and drugs and men and women in ranks,” Schoomaker said. “We

are as much about solutions and electrons flowing through a network and about raw brain power than we are about things and about brawn.”

New commander at institute

Col. George W. Korch Jr. assumed command of the U.S. Army Medical Research Institute of Infectious Diseases June 20 during a ceremony at Fort Detrick, Md. Korch replaced Col. Erik A. Henchal, who commanded the institute since June 2002. Henchal retired from the Army after 25 years of active-duty service.

Henchal thanked his family, his staff, and the personnel of USAMRIID’s Diagnostic Systems Division, which he headed prior to assuming command of the institute. Under his leadership, USAMRIID analyzed more than 30,000 diagnostic samples and conducted more than 260,000 assays in support of the nation’s war on terrorism following the events of Sept. 11 and the subsequent anthrax mail attacks.

“I’m leaving you with one of the best teams you could hope



Schoomaker



Korch

People in the News

for,” Henchal told Korch.

Korch most recently served as director of the Medical Chemical and Biological Defense Research Division for the Defense Threat Reduction Agency at Fort Belvoir, Va. He previously served USAMRIID as a research entomologist, branch chief for rapid diagnostics, virology division chief, and deputy commander.

“For all the employees of USAMRIID, you have been my heroes for over 20 years—ever since the first day that I entered your hallowed hallways and laboratories in 1982,” Korch said. “And 23 years later, I can say that I am still awed to stand in the presence of giants in the field of biodefense. It’s even more thrilling that I have been given this extraordinary opportunity.”

— *By Caree Vander Linden, USAMRIID*



Running start

Capt. Kate Suarez, company commander, Medical Company, U.S. Army Medical Research Institute of Infectious Diseases, leads her company through a street on Fort Detrick, Md., Aug 12. The organizational run kicked off the unit’s Organizational Day.



Camp visit

Capt. Chris Ackerman visited the Banner School Day Camp Aug. 5 during the camp’s tribute to “everyday heroes.” Currently working at the U.S. Army Medical Research Institute of Infectious Diseases, Ackerman spent almost a half hour with about 40 children, who ranged in ages from 5 to 8 years. He showed them photos of Iraq, taught them the Arabic words for “hello” and “goodbye,” and answered questions about what it was like to jump out of an airplane when he was in airborne training.

Re-enlistments

Walter Reed Army Institute of Research

- ❖ Staff Sgt. Kevin Muravez
- ❖ Sgt. John Medina
- ❖ Sgt. Ricardo Martinez
- ❖ Spc. LaToya Hargrove
- ❖ Spc. Christopher Allen
- ❖ Spc. Velveeta Hammond
- ❖ Spc. Samantha Reiman

U.S. Army Medical Research Institute of Infectious Diseases

- ❖ Staff Sgt. Robert Tad Simons
- ❖ Staff Sgt. Stephanie L. Guice
- ❖ Sgt. Jaime Cano
- ❖ Spc. Travis Robinson

Paintball adventure

Members of U.S. Army Medical Research Institute of Infectious Diseases used Fort Detrick's Paintball Course July 29 to train, develop esprit de corps and to take care of their Soldiers and civilians.

"This was an opportunity to combine training and fundraising for our organizational day," said Spc. Scott Miller, a laboratory technician with the Integrated Toxicology Division of USAMRIID.

"The event was a great success," said the Ashtabula, Ohio, native and event organizer. "We trained and raised money and had a lot of fun doing it."

The afternoon began with team-on-team match ups. Those matches were followed by one-on-one events, where members of the command bid for the opportunity to take on individual members of the command group. The high bid was a combined one from five of the unit's members. The five paid a total of \$310 to face the command's sergeant major on the paintball field.

At the end of the day, a total \$550 was raised to help pay for food, activities and entertainment at the institute's organizational day Aug. 12. The unit's goal was \$8,000, but it has already exceeded that amount by more than \$2,000. Raising money for the organizational day makes it possible for all the members of the command and their families to attend the event for free.



Spc. Aaron Taylor, USAMRIID, runs to a new firing position, hoping to get a better shot at his opponents.

In shape

Col. James Romano, then-commander of the U.S. Army Medical Research and Materiel Command, presented the following USAMRMC Soldiers with certificates of achievement and physical fitness badges May 27:

- ❖ Lt. Col. Don Archibald
- ❖ Command Sgt. Maj. Domingo Costa
- ❖ Capt. Ed McDonough
- ❖ Capt. Ross Davidson
- ❖ Lt. Col. Ulises Miranda
- ❖ Lt. Col. Jose Andujar
- ❖ Staff Sgt. Sion Henderson
- ❖ Col. Brian Lukey
- ❖ Lt. Col. Arthur Brown
- ❖ Master Sgt. Vernon Mitchel
- ❖ Lt. Col. Harry Slife received a certificate of achievement for scoring 90 points in each event.

People in the News

Trying for top

Spc. JohnMichael Rosario, a medical laboratory technician for the U.S. Army Medical Research Institute of Infectious Diseases, demonstrates treatment for a chemical casualty during the Medical Command Soldier of the Year competition held June 21 through 24 at Fort Sam Houston, Texas.



Rosario

Rosario represented the U.S. Army Medical Research and Materiel Command. Taking the top title at as MEDCOM Non-commissioned Officer of the Year is Sgt. Jamie C. Norton from Womack Army Medical Center, Fort Bragg, N.C., and MEDCOM Soldier of the Year is Spc. Javier L. Najera from Madigan Army Medical Center, Fort Lewis, Wash.

Everest trek

Chuck Dasey, U.S. Army Medical Research and Materiel Command Public Affairs officer, spent time on Mount Everest during the spring.

“Ten years into my mountaineering life, I got the chance to go to Mount Everest, and eagerly took it. Everest is an obsession for some climbers, a lifelong goal for others,” he said. “Since I had never considered Everest within my grasp, I hadn’t spent much

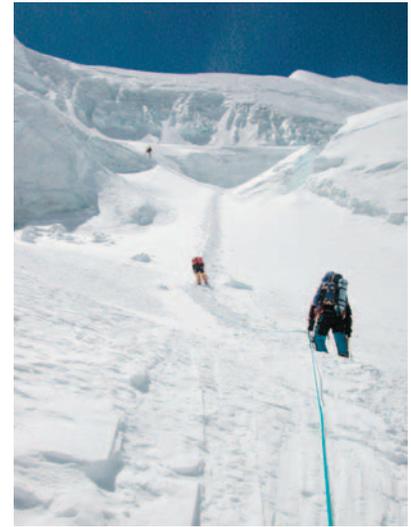
time thinking about going there. But a successful trip up a neighboring peak in the Himalaya last fall opened my eyes to the possibility of climbing the big one, and I was hooked.”

Halfway through the expedition, however, Dasey’s health began to doom his chances. First he contracted a chest infection that made it even harder to breathe the thin air. Then a recurrence of a circulation problem in one of his legs made walking uphill a bigger challenge than it already was.

“I fought the good fight for a while, but soon had to admit to myself that I wasn’t a candidate for the summit,” he said. “I left the mountain while my team was still waiting for high winds on the upper part of the peak to drop to allow them to go for the summit.”

Once he was home, Dasey learned from a Web site that covers Mount Everest expeditions that 14 members of his team and 14 Sherpas made it to the summit.

“I’m happy for them, and I wish I could have been there,” he said.



Climbers approach the North Col of Mount Everest.

People in the News

Achievement awards at conference

At the Advanced Technology Applications for Combat Casualty Care conference in St. Pete Beach, Fla., Aug. 15, the following individuals received awards:

- ❖ Retired Maj. Gen. Lester Martinez-Lopez for his dedication, insight and guidance for the Department of Defense Combat Casualty Care Research Program while serving as commander of the U.S. Army Medical Research and Materiel Command

- ❖ Ellen Embrey, deputy assistant secretary of defense for force health protection and readiness, for her support of the Department of Defense Combat Casualty Care Research Program, especially in sponsoring data collection efforts for the Joint Theater Trauma Registry

- ❖ Retired Col. Jim Atkins of the Walter Reed Army Institute of Research for his lifetime achievements in combat casualty care research and discovering the best overall resuscitation fluid for the battlefield

- ❖ Dr. Harold Champion, professor of surgery and senior advisor in trauma and professor of military and emergency medicine at Uniformed Services University of Health Sciences, for his lifetime achievement in guiding, directing and shaping military and civilian trauma surgery over the past 30 years.

- ❖ Retired Master Chief Tom Eagles, who served seven

**Fenway fame**

Cpl. Larry Walker, Sgt. Dennis Rufolo, Spc. Marcus Tillis and Spc. Hipolito Ramos from the U.S. Army Research Institute of Environmental Medicine performed color guard honors at the June 29 game between the Boston Red Sox and the Cleveland Indians at Fenway Park, home of the Green Monster.

years in Vietnam, has a Silver Star and three Purple Hearts, for lifetime achievement in mentoring a generation of Navy corpsmen and for his work in providing an updated aid bag and modernized first aid kit

Sharp shooters

Soldiers from the U.S. Army Medical Research Institute of Infectious Diseases participated in weapons qualification July 26-27. Forty-nine qualified on the M-16, 28 on the 9-millimeter pistol.

Several Soldiers shot expert on the M-16 rifle, including:

- ❖ Sgt. Kevin Atiase
- ❖ Spc. Matthew Bostick
- ❖ Spc. Jason Buck

People in the News

- ❖ Sgt. Jaime Cano
 - ❖ Sgt. Adam Contreras
 - ❖ Sgt. Michael Marney
 - ❖ Pfc. Norma Sampedro
 - ❖ Staff Sgt. Carmelo SantaRomana
- Three shot expert on the 9-millimeter:
- ❖ Sgt. Jaime Cano
 - ❖ Sgt. 1st Class Donald Tucker
 - ❖ Maj. Max Teehee

“These are the folks that I would like to have watching my back on a convoy or firefight,” said 1st Sgt. Danny Hassan of USAMRIID.

New chief from command

Carl E. Hendricks was named chief information officer for the Military Health System, according to a Sept. 12 TriCare Management Activity news release.

Formerly of the Telemedicine and Advanced Technology Research Center, a division of the U.S. Army Medical Research and Materiel Command, he served in a variety of positions spanning 26 years of military service, with a concentration of experience in medical information technology and acquisition management.

Maryland's Top 100 Women

Since 1996, The Daily Record, Maryland's business and legal newspaper, has recognized women who live or work in Maryland for outstanding achievements in their professions, in their communities

and in their mentorship of others. Among Maryland's Top 100 Women for 2005 is Col. Michelle C. Ross, former deputy commander of the U.S. Army Medical Research Institute of Chemical Defense.

Ross said she was surprised when she received a call from The Daily Record notifying her of her nomination and requesting an application describing her career history, accomplishments, community involvement and mentoring. The nominations had come from economic development agencies, chambers of commerce, women's organizations and the business community. According to The Daily Record, there were 400 nominees this year, of which 250 women submitted applications. Through a preliminary round of judging, 150 finalists were identified. The top 100 women were then selected by an outside panel of judges.

Ross is now director, Medical, Chemical, Biological, Radiological and Nuclear Programs under the Office of the Assistant Secretary of Defense for Health Affairs.



Ross suited up for the U.S. Army Medical Research Institute of Chemical Defense's week-long field exercise in June.

People in the News



34-years of accomplishments

Dr. Judy Pace-Templeton, who pioneered the regulatory efforts at the U.S. Army Medical Research Institute of Infectious Diseases and set the stage for how scientists throughout U.S. Army Medical Research and Materiel Command are now operating, retired after 34 years of federal service Aug. 25.

Pace-Templeton began her career as a research chemist at the Navy Ship research and development Lab in Annapolis, Md. She then went to work for USAMRIID and later USAMMDA. She helped develop the multidisciplinary regulatory Office of Product Development and Regulatory Affairs and accelerated the development of Food and Drug Administration-approved products to protect against biological warfare agents and infectious diseases. She also coordinated with research laboratories, national and international organizations, the commander and staff of USAMRMC, DoD officials, and the FDA to avoid duplication of effort and assure exchange of information on related projects.

WRAIR achievers

- ❖ Lt. Col. Art Lyons was the honor graduate from his class at Airborne School.
- ❖ Ken Eckels won the 2005 AMSUS Dalrymple Award for excellence in biodefense research.

Recent graduates from Primary Leader Development School are:

Visit

Sierra Army Depot in Herlong, Calif., and Sgt. Maj. Carlos Lopez of the U.S. Army Medical Materiel Agency hosted Command Sgt. Maj. Michelle S. Jones, U.S. Army Reserve Command, and Command Sgt. Maj. Domingo Costa, U.S. Army Medical Research and Materiel Command, June 14. Jones and Costa had an opportunity to see and speak with Soldiers from the 405th Combat Support Hospital from West Hartford, Conn. The CSH was conducting a 60-month scheduled property and equipment accountability cycle.

- ❖ Spc. Rohan Lobban, who made the Commandant's List and received the Army Physical Fitness Test award
- ❖ Spc. Frances Palmer, who received the Army Physical Fitness Test award
- ❖ Sgt. Samuel Melendez
- ❖ Spc. Ray Lewis
- ❖ Spc. Robert Weaver

Tech transfer award

Dr. William van der Schalie, Mark Widder and Tommy Shedd of the U.S. Army Center for Environmental Health Research received the 2005 Excellence in Technology Transfer Award from the Federal Laboratory Consortium Mid-Atlantic Region Sept. 15 in Cumberland, Md. The team was cited for its outstanding work in transferring a federally developed technology, "Apparatus and Method for Automated Biomonitoring of Water Quality," to the commercial marketplace. The consortium comprises more than 70 federal laboratories and agencies in Pennsylvania, Delaware, Maryland, Virginia, West Virginia and the District of Columbia.

Study highlighted

Capt. Robert Carter of the U.S. Army Research Institute of Environmental Medicine's study, "Epidemiology of Hospitalizations and Deaths from Heat Illness in Soldiers," was selected for the August news release from the American College of Sports Medicine.

People in the News



Rash

Best paper award

The American Helicopter Society presented the Best Paper Award to Clarence E. Rash and Lt. Col. Keith Hiatt at the Vertical Flight Society's 61st Annual Forum and Technology Display, held June 1-3 in Grapevine, Texas. Rash is a research physicist with the U.S. Army Aeromedical Research Laboratory, Fort Rucker, Ala., and Hiatt is U.S. Army Forces Command preventive medicine officer at Fort McPherson, Ga.

Their article was entitled "Apache Flight Experience in Operation Iraqi Freedom Shows Reduced Incidents of Visual Illusions and Problems with the Monocular Helmet-Mounted Display."

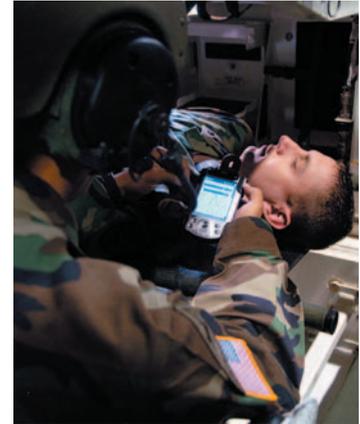
The paper was based on a survey of AH-64 Apache aviator visual experiences with the AH-64's monocular integrated helmet and display sighting system helmet-mounted display in Operation Iraqi Freedom. The study's major objective was to determine if the frequencies of reports of visual complaints and illusions would increase in more stressful combat environments. The study's results showed lower reporting frequencies for most types of complaints and static and dynamic illusions.

Innovation award

The Telemedicine and Advanced Technology Research Center won a 2005 Government Computer News Agency Award for Innovation for its Battlefield Medical Information System-Tactical, or BMIS-T. From a field of 132 nominations, The BMIS-T was one of 11 winners for 2005 to receive the honor.

Winners were chosen for their innovation, support of program or policy requirements, and improvement of service delivery. The team will receive the award Oct. 11 at the GCN Awards Gala Event

GCN also awarded the BMIS-T a 2005 Promising Practices Award June 7. The GCN's Promising Practices award showcase federal agencies' creative and effective solutions to some of the most challenging issues facing government. Ten winners were chosen by a panel of expert analysts.



The Battlefield Medical Information System-Tactical earned two awards from Government Computing News.

People in the News



Seven Soldiers from the U.S. Army Research Institute of Environmental Medicine were inducted into the Non-commissioned Officer Corps July 27. Front Row: Sgt. Heath Isome, Sgt. Dennis Rufolo, Sgt. Major Joel Crouse, Sergeant Major of the U.S. Army Soldier Systems Center, Sgt. Joseph Alemany. Back Row: Sgt. Mona Mathow, Sgt. Andrew Coggins, Sgt. Timothy Welsh, Sgt. Diane Pietila.

Induction ceremony

Soldiers from the U.S. Army Medical Research and Materiel Command that were inducted into the Non-commissioned Officer Corps June 23 at Fort Detrick include:

- ❖ Sgt. Jamie Cano
- ❖ Sgt. Falynn Trayer
- ❖ Sgt. Donald Forte
- ❖ Sgt. Susan Miranda
- ❖ Sgt. Matthew Ludivico
- ❖ Sgt. Elizabeth Bode

Soldiers of the Year

Sgt. Dennis Rufolo and Spc. Marcus Tillis were both recognized with Army Achievement Medals for winning the installation Non-commissioned and Soldier of the Year competitions at the Organizational Day opening ceremonies at the Natick Soldier Systems Center.

Rufolo and Tillis were distinguished from their competitors on the installation for

their impeccable appearance and military bearing as well as their vast knowledge of military and world affairs. Brig. Gen. James Moran, the installation commander, presented the medals.



Tillis

Outstanding employees

John Boxell received a certificate of appreciation for being named employee of the quarter for April to June for the U.S. Army Medical Materiel Development Activity July 19. Boxell, who works in the Pharmaceutical Systems Project Management Division, was cited for implementing several budget projection procedures as well as a financial tracking system.

Several soldiers also received certificates of achievement for their scores on the physical fitness test: Lt. Col. Art Brown, Col. Jerry Pierson, Maj. Dave Shoemaker and Capt. Eric Midboe. Brown scored above 291 and received a coin, a PT patch, and a four-day pass.

Dr. Don Caldwell and Cindy Cutsail were given longevity awards marking their 30 years of service. Diana Hoffman received one for her 20 years, and Kathie Mantine received one for 15 years of service.

Fort Detrick's Financial Readiness Program Manager at Army Community Service acknowledged USAMMDA's contribution to the 2005 Army Emergency Relief Campaign. The small unit contributed a third of the post's goal of \$20,000.



Rufolo

People in the News

**Katrina relief**

Brig. Gen. Eric Schoomaker and Command Sgt. Major Domingo Costa said farewell to a team from the U.S. Army Medical Materiel Agency departing from Fort Detrick to assist with relief operations in New Orleans. Jack Rosarius and Sgt. 1st Class Emma Goins from USAMMA arrived in New Orleans Sept. 7 to work with the 14th Combat Support Hospital at the Louis Armstrong Airport. As part of a 15-person Materiel Fielding Team, they are assisting in setting up the hospital from Fort Benning, Ga., in the Joint Task Force Katrina area of responsibility. The team spent two weeks in New Orleans providing logistics and medical maintenance support.

News to use

Relief volunteers

The Office of Personnel Management has issued guidance to grant excused absences for employees who wish to assist in relief effort; however, the need should come from a recognized relief agency, such as the American Red Cross. Approval is strictly up to commanders with the needs of the mission always primary consideration.

Leave transfer

The president also authorized OPM to establish, if needed, an emergency leave transfer program to assist employees affected by Hurricane Katrina. An emergency leave transfer program will permit employees in an executive agency to donate unused annual leave for transfer to employees of the same or other agencies who are adversely affected by the hurricane and who need additional time off from work without having to use their own paid leave.

In response to the president's directive, OPM has authorized the affected agencies to:

- (1) Determine whether, and how much, donated annual leave is needed by affected employees;
- (2) As appropriate, approve leave donors and leave recipients in their agencies;
- (3) Facilitate the distribution of donated annual leave from approved leave donors to approved leave recipients within their agencies; and
- (4) Determine the period of time for which donated annual leave may be accepted for distribution to approved leave recipients.

OPM's regulations on the administration of the emergency leave transfer program are available on OPM's Web site at www.opm.gov/fedregis/html/dec_99.htm. Additional guidance is available at www.opm.gov/oca/leave/HTML/emerg.htm.

Most affected employees will be granted excused absence or receive other payments to cope with the immediate emergency. The emergency leave transfer program will be in place to assist approved leave recipients as the need for donated leave becomes known.