

# The Point

A magazine about the people of the  
U.S. Army Medical Research  
and Materiel Command  
Summer 2013



**Carmen Blandin Tarleton received a cutting-edge surgery funded with support from DoD after a disfiguring injury in 2007 burned more than 80 percent of her body and face. On May 1, 2013, she revealed her new face to the public. (Brigham and Women's Hospital / AP photo)**

## Advancements in Regenerative Medicine

# DoD Funds Surgery for New Face

Carmen Blandin Tarleton revealed her face to the world on May 1.

However, this was not the face that Blandin Tarlton was born with, nor was it the face that she saw each day when she looked into the mirror growing up. This was a new face; a face that brought an end to more than six years of pain and discomfort.

On June 10, 2007, Blandin Tarlton's estranged husband broke into her home in rural Vermont, beat her with a baseball bat, and doused her with industrial-strength lye. She was severely burned over more than 80 percent of her body; the

worst burns were to her face and neck. Her doctor described it as one of the worst injuries he had seen in entire his career.

But her story is not an unhappy one. It is a story about fortitude, perseverance, and the possibilities that modern medicine hold for those who need it most.

Following the assault, she spent the next six years in the care of the doctors at the Brigham and Women's Hospital in Boston with support from the Department of Defense and the U.S. Army Medical Research and Materiel Command's Biomedical Translation Initiative, managed by the Regenerative

and Restorative Medicine Management Team.

Her primary physician was Dr. Bohdan Pomahac, and it was in his care that Blandin Tarlton underwent more than 50 surgeries in an attempt to repair the damage she sustained in the attack. Yet, despite the best efforts of her doctors, she was left severely disfigured and legally blind, the scar tissue in her neck making it painful and difficult to move.

Then, in December of 2011, Blandin Tarlton was approved for a face transplant, and a new chapter of her story began.

**FACE continued on Page 2**



**FACE, continued from Page 1**

BWH and the New England Organ Bank began searching for a donor and earlier this year, despite several obstacles including a decreased immune system from her years of operations, skin grafts, and blood transfusions, they found a match.

It took a team of extremely talented medical professionals to begin the process of a facial transplant – a task that required more than 30 surgeons, anesthesiologists, and nurses who worked for more than 15 hours to replace her nerves, tendons, muscles, and skin. At the press conference on May 1, the donor’s daughter, Marinda Righter, praised those responsible for the transplant as “miracle workers.” She expressed the happiness that she feels when she looks at Blandin Tarlton and sees her mother’s freckles, and the overwhelming joy to see her mother give back even after her death.

Erin McDonough, senior vice president of communications and public affairs at BWH, acknowledged “the Department of Defense for funding this incredible work.”

“The U.S. Army Medical Research and Materiel Command’s regenerative and restorative medicine research efforts bring together the world’s leading scientists and physicians from academia and industry to develop innovative medical solutions to fully restore our Warriors

and civilians from traumatic injuries,” said Col. John Scherer, director of the Clinical and Rehabilitative Medicine Research Program at USAMRMC. “Since 2009, the DoD’s Biomedical Translational Initiative has funded almost \$4 million in face transplant research, focusing on medical research to repair injuries suffered following severe facial trauma.”

Within the USAMRMC, the CRMRP and the Regenerative and Restorative Medicine Management Team are involved in the BTI effort and other composite tissue allotransplantation studies (hand and face transplants). CRMRP conducts portfolio planning and aligns resources to support the research necessary to fully reset traumatically wounded service members. The BTI contracts are managed by the Regenerative and Restorative Medicine Management Team within the U.S. Army Medical Materiel Development Activity, providing technical and regulatory oversight.

Pomahac also thanked the DoD for continued support in their program, stating that they could not have accomplished this amazing act without the help of the DoD. Their support funding covers approximately 40 percent of the costs of care for patients before and after the transplant surgery, and supports some of the systems needed to conduct the clinical trial.

The DOD has played a major role in several other high-profile complex tissue replacements. Earlier this year, the Regenerative and Restorative Medicine Management Team assisted with a double arm

transplant for a wounded warrior at Johns Hopkins University Hospital. The surgery, which took 13 hours and involved 16 orthopaedic and microvascular surgeons, was the first transplant of this kind performed at Johns Hopkins.

The Defense Department launched the Regenerative and Restorative Medicine Management Team in 2008 to advance research to treat wounded warriors suffering traumatic injuries, said Scherer. The Regenerative and Restorative Medicine Management Team is managed and funded through the USAMRMC, with additional funding from the U.S. Navy’s Office of Naval Research; the U.S. Air Force Surgeon General’s Office; the DOD Office of Health Affairs; National Institutes of Health; and the Department of Veterans Affairs.

“Transplants, such as the procedure performed at Brigham and Women’s Hospital, offer the hope of improved function and the promise of a better quality of life for our injured service members,” added Scherer.

For additional information about tissue, eye, and organ donation, visit <https://www.donatelife.net>. To learn more about the USAMRMC, Regenerative and Restorative Medicine Management Team, and the BTI effort, visit <https://mrmc.amedd.army.mil/>.

*Article by Chelsea Bauckman, USAMRMC PAO*



Surgeons perform Carmen Blandin Tarleton’s 13-hour face transplant surgery. The surgery involved 16 orthopaedic and microvascular surgeons and was the first transplant of this kind performed at Johns Hopkins. (Brigham and Women’s Hospital photo)

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## Algorithm Gauges When Patients Are in Danger

Researchers at the U.S. Army Institute of Surgical Research at Joint Base San Antonio—Fort Sam Houston, Texas, are improving medical monitors that have been used in clinics and hospitals since the early 1970s to assist physicians and medical staff in assessing a patient's condition. The Compensatory Reserve Index, or CRI, is a new algorithm that utilizes the information obtained from a standard pulse oximeter and gauges whether a patient requires resuscitation or immediate medical attention.

"This [CRI] can evaluate information from waveforms generated by taking a standard pulse oximeter, which is a non-invasive medical device routinely placed on a finger or ear and measures levels of blood oxygen saturation and heart rate," said Victor A. Convertino, Ph.D., Tactical Combat Casualty Care Research Task Area Program Manager at the USAISR. "The algorithm provides a decision support system that could help a young medic who doesn't have much experience in pre-hospital care make life-saving decisions."

The standard measurements displayed by a pulse oximeter cannot detect whether a patient is in danger of crashing [going into shock] like the CRI. The CRI has a gauge much like a

fuel gauge in a motor vehicle to indicate when fuel is running low. The CRI gauge begins to show a loss in "fuel" well in advance of changes in blood oxygen or heart rate measured by the pulse oximeter.

According to Convertino, when a person is injured and bleeding internally, the body compensates by increasing heart rate and constricting blood vessels responses that elevate blood pressure. This compensation creates a patient with vital signs and cognition that appear normal to the attending clinician. The CRI will show that the patient is in danger whereas the pulse oximeter alone does not.

"A person can be bleeding out internally and seem normal until the body can no longer compensate and 'crash' [go into shock] in a matter of seconds," said Convertino.

Convertino and his team have conducted experiments on more than 230 participants using a lower negative blood pressure machine as a model of hemorrhage to collect the data that has been downloaded onto the algorithm.

"The physiology of using the LNBP machine looks the same as if someone were bleeding out," he said. "It's a way of 'bleeding' someone without taking a drop of blood."

The CRI now requires U.S. Food and Drug Administration approval.

"We have developed a protocol to conduct clinical trials," said Convertino. "We're pretty confident that the CRI will receive FDA clearance within the next year."

*Article by Steven Galvan, USAISR PAO*



**Much like a fuel gauge in a motor vehicle, the gauge of the Compensatory Reserve Index begins to show a loss in "fuel" well in advance of changes in blood oxygen or heart rate measured by the pulse oximeter. (Photo courtesy of USAISR public affairs)**

## USAMRMC's Work Contributes to Army Earning 'Top Innovator' Title

The U.S. Army was recognized as one of the Top 100 Global Innovators on Thomson Reuters' second annual innovators list.

In their report, Reuters highlighted several projects of the U.S. Army Medical Research and Materiel Command, which has developed unique innovations such as:

- Progress towards a Malaria vaccine, Ebola drug, and dengue fever therapy
- Development and fielding of truncal tourniquet
- Completion and implementation of an Adenovirus vaccine

"This recognition is shared with the members of our Army science and technology community who perform research relevant for the Army and our important mission, and provide the innovation that contributes to a strong national security posture," said Heidi Shyu, the Assistant Secretary of the Army for Acquisition, Logistics and Technology, who accepted the award on behalf of the service during a small ceremony at the Pentagon April 30. "Nearly 12,000 scientists and engineers perform their work daily knowing that it will benefit our soldiers by providing them with the best technology available to successfully accomplish their mission."

Shyu added that soldiers are our most important customers, and are deployed across the world in service to our nation. Army investments in science and technology are a "critical hedge" in acquiring superiority with "innovative, revolutionary, and paradigm-shifting technologies." Equipping soldiers for any environment -- anywhere in the world -- is a top priority.

The Army and the Navy are the first government agencies to make the Thomson Reuters annual list. Only organizations having at least 100 or more "innovative" patents in the past three years may be recognized by the award. According to Reuters, an "innovative" patent is defined as the first publication in a patent document of a new technology, drug, business process, etc. The Army published 436 patents between 2009-2011, of which 327 were granted patents. Approximately 135 of these patents were from USAMRMC.

"Army Science and Technology cannot survive without innovative scientists and engineers," said Mary J. Miller, Deputy Assistant Secretary of the Army for Research and Technology. "We are lucky to have an amazing group of scientists and engineers to invent, innovate, mature and demonstrate technology that provides increased capability to the warfighter."

*Article by Ellen Crown, USAMRMC PAO*

## 2013 Military Health System Research Symposium

Aug. 12-15

Harbor Beach Marriott  
Fort Lauderdale, Fla.

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Dr. Andrew Young, division chief for the Military Nutrition Division at the U.S. Army Research Institute of Environmental Medicine, pictured with Dr. Janet Walberg-Rankin, president of the American College of Sports Medicine, received the Citation Award at ACSM's annual conference in Indianapolis May 28.



## Natick Researcher Receives Prestigious Citation for Lifetime of Stellar Science

Dr. Andrew Young, division chief for the Military Nutrition Division at the U.S. Army Research Institute of Environmental Medicine has been honored for his professional contributions over his 36-year career in science.

Young received the Citation Award from the American College of Sports Medicine at ACSM's annual conference in Indianapolis on May 28.

Young was one of six scientists who received this year's award based on professional merit. The Citation Award is the second highest award given out by ACSM and is granted to an individual or group who has made significant and important contributions to sports medicine and the exercise sciences. Contributions considered include research and scholarship, clinical care and administrative and educational services in sports medicine and exercise science.

There have been approximately 200 recipients in the 55 years since the award's inception, and only a few are awarded annually.

"This is the biggest honor I have received," Young said. "I'm very proud to receive that kind of recognition by my scientific colleagues, peers and community."

Young, who has served USARIEM and the Army community for more than 36 years, received the award for his lifelong scientific contributions to both military and civilian communities and in recognition of his many significant professional contributions to the fields of exercise physiology, sports medicine and nutrition as well as his extensive involvement with ACSM.

At USARIEM, Young supervises more than 30 scientists, technicians and support staff. He oversees a multimillion dollar budget and directs research to study mechanisms by which nutrition influences the health and performance of military personnel.

Young is an internationally recognized expert on environmental physiology, having contributed seminal papers concerning human adaptation

and performance at the extremes of heat, cold and high altitude. His research has also resulted in important articles concerning the biological basis for, and strategies to mitigate performance degradation in people exposed to intense physical exertion, sleep restriction and nutritional deprivation.

Young has demonstrated outstanding scientific productivity through 350 publications, of which he is senior author on about 50 percent. Over 180 of his publications appear as peer-reviewed journal articles, book chapters and technical reports. He also has more than 160 published abstracts from professional presentations. He has presented at 75 invited seminars, symposia presentations and scholarly lectures. His research findings have been extensively translated into evidence based preventive medicine programs for sport events, industry and U.S. and foreign military services.

Since being elected a Fellow of the College (for ACSM) in 1982, Young has served on more than 10 ACSM Committees, Ad Hoc Committees or Task Forces as well as being elected to the Board of Trustees.

However, his most distinguished and important service to the College was to its flagship journal: *Medicine & Science in Sports & Exercise*. Young was selected to serve a four-year term as Editor-in-Chief beginning Jan. 1, 2006, and he was invited to continue his service for a second four-year term, which will end this later this year. Over this time, the Journal Citation Reports impact factor increased from two to well over four, which is the highest in the journal's history. Overall manuscript submissions increased 15 percent. According to ACSM, the state of the journal is stronger than ever.

With all this service and experience under his belt, Young hopes that young scientists heed his advice.

"Keep working hard," Young said. "Be involved in your research, be involved in your professional societies and try to make a contribution wherever you can."

*Article by Bob Reinert, USAG Natick PAO*

## USAARL Researcher Earns RDA Award

Dr. Amanda Kelley, research psychologist at the U.S. Army Aeromedical Research Laboratory at Fort Rucker, Ala., was among the 153 Army scientists and engineers to receive the 2012 Research and Development Achievement award.

The RDA award, given by the Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, represents the recipient's demonstrated promise to improve the Army's technical capabilities and enhance national defense through ground-breaking work and dedication in research and technology development.

"These recipients reflect the great diversity of talent and expertise within the Army laboratory system that supports the future capabilities of our Soldiers," said Mary Miller, deputy ASA (ALT). "These scientists and engineers distinguished themselves through their proven scientific and technical excellence or leadership."

The award is divided into three categories: Outstanding Technical Achievement, Outstanding Technical Leadership, and Outstanding Collaborative award.

Kelley received one of the 115 Outstanding Technical Achievement awards.

"This award was unexpected and quite an honor. I'm so grateful for the opportunity to conduct research for the soldier. I am even more grateful for my research team who worked so hard to make this project a success," said Kelley.

"I nominated Dr. Kelley because, in just over five years, she distinguished herself as a highly talented, innovative, and industrious scientist who led 14 research projects and assisted other researchers as a co-investigator in numerous projects. To add to her value, Dr. Kelley was a prolific author, gaining recognition as the most extensively published scientist at USAARL over the past five years," said Dr. Arthur Estrada, director of the USAARL Warfighter Health Division.

*Article by Catherine Davis, USAARL PAO*



## Army Surgeon General Visits USAMRMC

Army Surgeon General and U.S. Army Medical Commander Lt. Gen. Patricia Horoho visited the U.S. Army Medical Research and Materiel Command at Fort Detrick May 30.

Horoho met with program experts in medical research and development, acquisition, and medical logistics management. She toured displays showcasing the USAMRMC's mission as a unique requirements-driven, full life cycle command that manages research, technology, development, acquisition, procurement and logistics, leveraging partnerships with industry, academia, and non-profit organizations.

Horoho also attended a board meeting for the National Interagency Confederation for Biological Research. USAMRMC is a partner agency of the NICBR, which also includes the National Institute of Allergy and Infectious Diseases; the National Cancer Institute; the U.S. Department of Agriculture; the Agricultural Research Service; the Department of Homeland Security; the Centers for Disease Control and Prevention; the Naval Medical Research Center; and the U.S. Food and Drug Administration.

At an afternoon staff town hall meeting, Horoho addressed employee concerns about sequestration and its impact on the Army budget. She took the opportunity to talk to staff about civilian administrative furloughs, which started in early July. Horoho said that leadership worked very hard to avert furloughs entirely.

"None of us wanted to take this out on the backs of our civilian workforce," she said.

Horoho added that now is the time to prioritize, as we manage with limited resources.

She emphasized, "We don't expect you to do more with less."



**During a tour of USAMRMC displays, Army Surgeon General Lt. Gen. Patricia D. Horoho tries out a BIOM, the first commercially available bionic leg system to replicate lost muscle and allow amputees to walk with reduced physical stress. (Photo by Adam Wyatt, TATRC)**

*Article by Ellen Crown, USAMRMC PAO*

## Commander Receives Second Star



**U.S. Army Medical Research and Materiel Command and Fort Detrick Commander Brig. Gen. Joseph Carvalho Jr., was promoted to Major General on July 2 during a ceremony at the post's Community Activity Center. Army Surgeon General Lt. Gen. Patricia D. Horoho (pictured) presided over the ceremony and assisted Carvalho's wife, Lorraine, with the placement of the two-star shoulder boards during the promotion ceremony. (Photo by Visual Information Specialist Sig Bruner)**

## IMCOM Joins NICBR

Lt. Gen. Patricia D. Horoho, U.S. Army Surgeon General and Commanding General, U.S. Army Medical Command signs a new amendment of the National Interagency Confederation for Biological Research with Dr. Daniel M. Gerstein, Deputy Under Secretary for Science & Technology, Department of Homeland Security, during a meeting at Fort Detrick, Md. May 30. Per this amendment, the U.S. Army Installation Management Command becomes a member of the NICBR. Witnessing the signing is Col. Steven P. Middlecamp, U.S. Army Garrison Fort Detrick commander. (Photo by Jeffrey Soares, USAMRMC public affairs)





## Clinical Trial Data System Supports Collaboration, Cost-Savings

The U.S. Army Medical Research and Materiel Command has updated its clinical trial records keeping with a new Electronic Data Capture-Clinical Research Data Management System (EDC-CRDMS).

EDC-CRDMS utilizes several Oracle commercial off-the-shelf products. Inform® allows USAMRMC to more efficiently develop, conduct and manage electronic data capture-based clinical trials. Utilizing Oracle's Central Designer® software, USAMRMC is able to accelerate trial development, increase trial efficiency, and more readily share clinical data with external partners, collaborators, and the U.S. Food and Drug Administration (FDA).

"This is a huge accomplishment," said Deputy Project Manager and EDC Working Group co-chair Capt. Bruce Barnes. "EDC will allow clinical trials at USAMRMC to be stored electronically, which allows for easier reporting, input and data management."

USAMRMC's Enterprise IT Project Management Office and

others worked on the project for more than two years. The system became fully operational April 22, approved by Dr. Kenneth Bertram, Principal Assistant for Acquisition.

In addition to providing electronic data capture, USAMRMC has a requirement to conduct paper-based clinical trials in partner countries such as Kenya and Thailand, or where consistent web-based access is not feasible. Utilizing Oracle's Clintrial®, USAMRMC will be able to input the trial data captured on paper into electronic format, utilizing features to assure accurate data entry, and facilitating electronic storage and sharing of clinical trial data with partners and the FDA.

"I am proud of being a part of this productive and successful collaborative effort between so many USAMRMC organizations and the Naval Medical Research Center," said Maj. Kirsten Smith, director of the Clinical Support Services Division and co-chair of the EDC Working Group. "Obtaining, configuring, and fielding this capability will provide a valuable resource to

our product development teams, external partners, and the DoD for years to come."

USAMRMC has established training and processes for use of the system, which are available for teams planning to use EDC-CRDMS for clinical trials.

Barnes added that there has been no official mandate for all clinical trials to utilize this system for its data management; however, with use of this system, organizations can expect significant savings over contracting out the service, which could mean more "research for less."

For more information, contact the eIT PMO at [usarmy.detrick.medcom-usamrmc.other.eit-pmo@mail.mil](mailto:usarmy.detrick.medcom-usamrmc.other.eit-pmo@mail.mil) or USAMMDA's Clinical Support Services Division at (301) 619-1106.

*Article by  
Capt. Bruce W. Barnes,  
Deputy Project Manager,  
Enterprise Information  
Technology Project  
Management Office*

## Air Beam Tents Tested Under Field Conditions

The Force Provider Expeditionary-Medical Systems air beam shelters were assessed as usable and functional in the medical operational environment, after the U.S. Army Medical Department Test Board evaluated the shelters in April 2012 at Fort Benning, Ga. Soldiers who participated preferred the air beam shelters because they were easily set up with only a few people, were easy to keep clean, and offered good ventilation and ceiling height.

Under a Congressional Special Interest project, the U.S. Army Medical Materiel Development Activity's Medical Support Systems Project Management Office developed the air beam shelters, which were adopted by the Product Manager Force Sustainment Systems as a replacement for the 25-year-old tent, extendable, modular, personnel, or TEMPER, soft-walled shelters in the current Deployable Medical Systems family of medical shelters.

The AMEDD Test Board coordinated the Fort Benning event with MSS PMO and the 14th CSH to evaluate how the new shelter supports the medical mission. The assessment included pack out, set up of 33 shelters, establishment in sequence, collective protection, or COLPRO, assessment of three wards with one bump-

through door airlock, and simulated medical, surgical, nursing, and ancillary services.

NSRDEC trained Soldiers on setting up and using the shelters and the chemically protected DEPMEDS, as well as air beam and integration training.

"It's been pretty realistic," Hogue said. "The training itself is beneficial since the AMEDD team gets to see a unit work in a chemical-protected hospital. The new tent is easier and goes up faster. Less people are required to put it up. ...What results is you have quicker medicine on the battlefield."

The goal of the CP DEPMEDS is to provide COLPRO from chemical and biological agents while medical and surgical functions continue. The FPE-MS shelter uses a COLPRO removable thermal liner. Also, environmental control units maintain airflow and temperature for 72 hours and are hardened to resist chemical and biological agents.

FPE-MS uses four high-pressure (40 psi), air-filled arches to support the shelters, drastically reducing the weight of the structure and shortening set-up time with fewer personnel. The basic shelter module's interior measurements are 32 feet long by 20 feet wide by 10 feet high, and has 640

square feet of clear-span floor area. The shelter weighs 600 pounds and is 106 cubic feet, packed in a lightweight cargo net.

Models are available in several configurations, depending on the mission. Three adjoining 64-foot FPE-MS air beam shelters, each comprised of two shelter modules, were configured during the assessment as an emergency medical triage area, central materiel supply and intensive care unit, which were connected using vestibules.

The 64-foot air beam shelter weighs 1,200 pounds. The customer assessment showed that eight Soldiers set up the 64-foot air beam shelter and installed the liner in less than two hours. In contrast, the similar size TEMPER shelters weigh 3,977 pounds and require 10-12 Soldiers to set them up in approximately 6 hours.

The shelters were tested previously in 2010 at Camp Bullis near Fort Sam Houston, Texas, and are deployed in support of Operation Enduring Freedom as Rest and Relaxation base camps. The shelters were also tested during Operation Iraqi Freedom operations.

*Article by Merrie E. Aiken,  
USAMMDA MSS PMO*

## Workshop Emphasizes Benefits of Sleep, Activity, Nutrition

The Surgeon General of the U.S. Army, Lt. Gen. Patricia D. Horoho, has a plan – and it’s a healthy one. Although she hopes her initiative will one day help to advance the fitness and well-being of our nation’s warfighters, she believes it may eventually transcend the military milieu and help improve the health of millions of Americans.

“When I look at the nation and I look at the rising cost of health care, and how unhealthy we’ve become as a nation, I believe that if we can really focus on sleep, activity, and nutrition, and take health care outside of the scenario and really push health, I think we can improve the health of not only our military, we can improve the health of our nation,” said Horoho to participants of her Performance Triad Workshop, held at Fort Detrick, Md., May 30.

Organized and sponsored by the Telemedicine and Advanced Technology Research Center of the U.S. Army Medical Research and Materiel Command, the two-day workshop brought together thought leaders from government, industry and academia in the fields of health, technology and behavior to discuss the primary topic of leveraging technology to create and sustain changes in health.

“The Performance Triad [sleep, activity, nutrition] is the Surgeon General’s number one priority,” said Lt. Col. Deydre Teyhen, TATRC deputy director, “and it involves enhancing activity, nutrition and sleep in order to optimize the performance of our Soldiers.”

TATRC has held two workshop sessions at Fort Detrick, in April and May of this year, to support Horoho’s vision.

“The goal of these workshops was to determine how to best use technology to overcome those barriers to make lifestyle changes easier,” said Teyhen.

One suggestion was the use of a personal readiness device. These PRDs are wristbands that synchronize with smart phones and personal computers to track sleep, activity, and nutrition, and can also offer healthy choices for food intake. The device actually helps to make counting calories a fun activity, and Teyhen said the buy-in from Soldiers has been very positive.

“We’ve actually tested this program with the Old Guard soldiers at Fort Myer (Va.), and they love it,” she said. “They said it is new and novel, and they are very excited about it.”

The team at TATRC plays an important role in the initiative

to investigate and recommend technology-based solutions to meet the Surgeon General’s goal of achieving readiness and resilience throughout the military. It has been exploring two interrelated areas: technology, and incentives to promote change. With regard to this program, “technology” involves the use of device- or software-based solutions to promote healthy exercise, nutrition and sleep; “incentives to promote change” focuses on strategies from public health, gaming, social media, and other areas that may help to build and reinforce [good] habits. By utilizing these two avenues, the researchers hope to develop methods by which individuals may create and sustain positive changes in personal health practices, which should translate to healthier lifestyles.

During the May workshop session, participants considered a holistic picture of the health of the individual (i.e. Soldier, family member, veteran), Army and Department of Defense, and the nation, to identify leading practices, research gaps, and the need to explore potential technology solutions that may influence real and sustained change in the health of all.

Brig. Gen. (since promoted to Maj. Gen.) Joseph Carvalho Jr., USAMRMC and Fort Detrick

commander, addressed the participants on day one of the workshop session, and within his message, he offered a challenge to the group.

“What innovations can you bring to the table to help the Surgeon General move forward in establishing a program that will encourage people to partner with us in this initiative – which will help make them healthier in the long run?” asked Carvalho. “We’re going to look at all the great ideas that you have ... whether it’s small business, university, or large industry – we’re going to look at it.”

“You have complete buy-in from the military on this,” he continued. “We must move from a health care system to a system of health.”

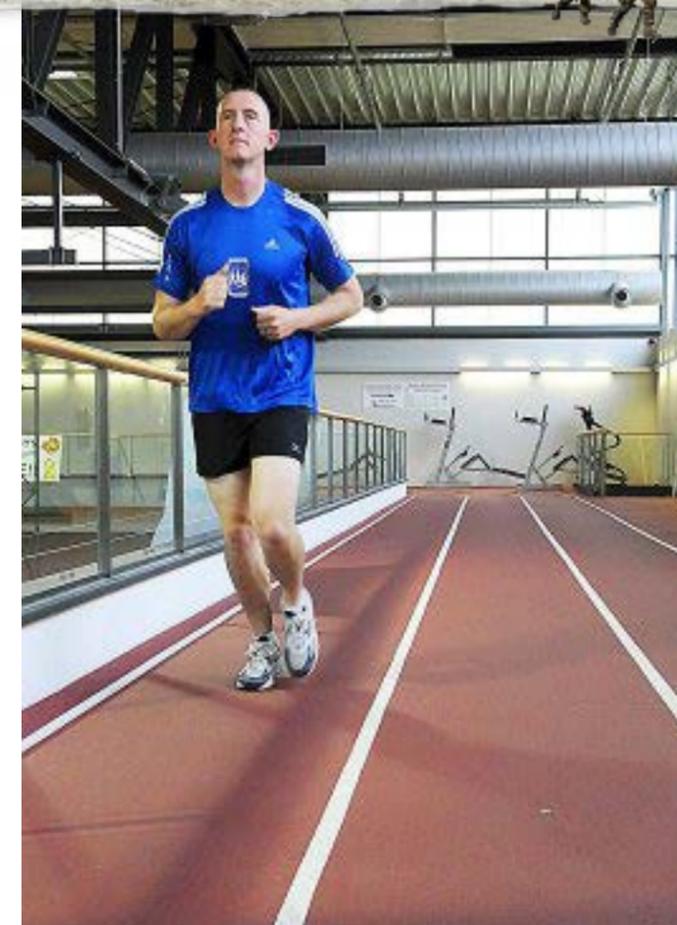
The overarching goal of this program is to encourage both the military and civilian population to move about more during their daily routine. Throughout today’s work environment, the use of personal computers at almost every workstation has made many employees stagnant.

“Our current workspace, whether you’re in the field or in garrison, requires a lot more sitting than it used to,” said Teyhen. “And we’re now finding that sitting [too often] is very harmful. So this initiative is meant to bring awareness to the harmful effects of [prolonged] sitting, in addition to the benefits of more routine physical activity.”

Teyhen said that although routine physical activity is important for good health, a proper amount of quality sleep each day is also critical. Without appropriate sleep, people may make poor decisions that affect more than just themselves.

“It’s not only about ‘I will’ but also ‘I won’t,’” said Teyhen. “You have to maintain that healthy balance [of sleep, activity, and nutrition] to make the right choices.”

Teyhen and the TATRC team believe they are on the right track in supporting the Surgeon General’s initiative, and the next step will be to conduct the



Sgt. 1st Class John Orth, 1st Cargo Transfer Company, 18th Combat Sustainment Support Battalion, takes a few laps around the indoor track at the Main Post Fitness Center. Orth recently finished running 1,000 miles for “Run for Your Life,” an incentive program that rewards participants for achieving personal fitness goals. (Army photo)

proper research to realize Horoho’s vision of a much healthier military – and civilian – population.

“I believe that if we have our line leaders supporting this movement towards health, then it won’t be a medical program, it will be embedded in the DNA of our Army, and that’s how it will be long-lasting,” said Horoho.

*Article by Jeffrey Soares, USAMRMC PAO*

## On Guard Against Traumatic Brain Injuries

They tend to be older, more experienced, and more likely to have families, but deployed members of the National Guard share something in common with their active-duty brothers and sisters -- the likelihood of suffering from traumatic brain injuries.

Like other U.S. service members, Guard members take the Automated Neuropsychological Assessment Metrics, or ANAM, test before deployments.

"It provides a baseline of sorts," said Dr. Kristin Heaton, a neuropsychologist at the U.S. Army Research Institute of Environmental Medicine at the Natick Soldier System Center. "Then if there's an incident in theater -- an injury or a blast exposure or something like that -- we can look for changes in these scores as markers of possible injury."

What's missing is a reference data set specific to the National Guard so that its members may be compared to their peers. Heaton and other USARIEM researchers aim to correct that by collecting data from a total of 3,000 Guard members from eight states, three different age groups, males and females, in combat support and combat arms units.

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Guard so that its members may be compared to their peers. Heaton and other USARIEM researchers aim to correct that by collecting data from a total of 3,000 Guard members from eight states, three different age groups, males and females, in combat support and combat arms units.

"We've been in active data collection now for a while," said Heaton, adding that the process will be complete in December. "We're aiming for a diverse geographic representation. Having a meaningful, representative data set like this could be really helpful for interpreting scores, both before and after injuries."

Why is it important to differentiate the National Guard from other service groups when it comes to traumatic brain injury, known as TBI?

"In many respects, they represent a different demographic of soldier," Heaton said. "For example, they tend to be older, have families and children, and have dual careers. There is some evidence in the literature that they may respond to deployments, both during and after, somewhat differently than their active-duty counterparts, all of which may impact not just the soldier, but his or her family, as well."

Heaton said that in the past,

most TBI research had been on active-duty service members. The National Guard recently has become more of a focus.

"Being able to better understand [National Guard service members'] unique situation and how deployments have affected them, both in the positive and perhaps not-so-positive ways, is an important area of research that really hasn't been well developed," Heaton explained.

Heaton said she hopes to publish a study containing the results soon after data collection ends. Her team will also provide the resulting data to the National Guard Bureau and the participating states directly.

"They've been extremely supportive, and I think they definitely understand the relevance of what we're doing and why," Heaton said. "We really do want to be able to get data into their hands that they can use and that would be meaningful and relevant to them, as quickly as we can."

Just what the data will show, Heaton can't accurately predict.

"They're going to perform probably very similar to the rest of the population," Heaton said. "But we do feel, given that they are a unique cohort within the military, the reference data would reflect their unique demographics."



**Dr. Kristin Heaton, a neuropsychologist at the U.S. Army Research Institute of Environmental Medicine, is working with other USARIEM researchers to collect data from 3,000 National Guard soldiers from eight states to provide a traumatic brain injury baseline. (Army photo)**

Heaton pointed out that National Guard leadership has great interest in the health and welfare of their personnel.

"They're very focused on their soldiers, not just when they have them on drill weekends, but also when they go back home and return to their civilian jobs and re-integrate to their home life situations," Heaton explained. "They're extremely interested and eager to know more and to have information that they can then use to help their soldiers. They have been quite welcoming of this work."

This is the latest in an impressive number of TBI studies done by Heaton and other USARIEM researchers.

"Much of our work to date has been focused on developing and validating measures of cognitive

performance as ways of assessing traumatic brain injury -- concussion, in particular," said Heaton, who added that the goal is "to provide more efficient, more effective and relatively fieldable tools for use by leadership, by medical command, to screen for concussion."

According to Heaton, TBI research is far ahead of where it stood several years ago. She said she wants to see that momentum continue.

"Traumatic brain injuries don't go away just because the war ends," Heaton said. "The effects of these injuries are going to remain with the soldiers who have sustained them, and a good number of head injuries and concussions occur during training and during off-duty activities. So this is going to be an enduring problem."

*Article by Bob Reinert, USAG-Natick PAO*



## USAMRIID Trains East African Clinicians on Especially Dangerous Pathogens

In the wake of several recent outbreaks of especially dangerous pathogens (EDP) in East African nations, U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) is making a difference by helping to develop a training program for medical clinicians in the region. A collaborative effort involving the Defense Threat Reduction Agency-Cooperative Biological Engagement Program (DTRA-CBEP), Uganda's Makerere University Walter Reed Project, and USAMRIID, the program is designed to improve early recognition, management and reporting of outbreaks of select agents (such as Ebola and anthrax) while being host nation sustainable in the East African region.

Many of these dangerous pathogens, which are also biological select agents in the U.S., are endemic in East Africa and can be difficult to diagnose. However, the need for early diagnosis and infection control measures is great, because the repercussions go far beyond medical care to international trade and travel restrictions. With the goal of sustainable public health improvement, this effort utilizes a train-the-trainer approach.

In March 2013, a geographically diverse set of clinicians across Uganda and Kenya participated in a week-long

training. The content included specific discussions on training techniques, infection control, and case studies and didactics on the especially dangerous pathogens of highest prevalence (such as viral hemorrhagic fevers and brucellosis). The goal of the training was to enable an initial cadre of 25 physicians in Kenya and Uganda to facilitate training at the regional and national level.

USAMRIID's East African training team conducted a "Train the Trainer" course in Kampala, Uganda in April 2013. Maj. Matthew Chambers, M.D., M.Ph. served as training director, and the team included Lt. Col. Robert Rivard, M.D., M.Ph.; Maj. Jaspal Ahluwalia, MD, MPH; and Capt. Edris L. Staples, A.N., R.N.-B.C. Their goal was to build clinician capacity to decrease the delay in early clinical diagnosis, management and reporting of EDP while employing infection control methods that conserve medical assets (thereby reducing morbidity and mortality during an outbreak).

Initially, Chambers met with key leaders from Kenyan and Ugandan government ministries, non-governmental organizations, and members of the Makerere University Walter Reed Project to develop a needs assessment on training, management, and reporting of

outbreaks of select agents in the East African region. Among the major concerns mentioned during the needs assessment were the lack of training in infection control and the need to have appropriate personal protective equipment (PPE) to protect healthcare workers early in an outbreak before the pathogen has been confirmed.

The highly interactive nature of the "train the trainer" process helped to identify common practices and pitfalls that occur in village hygiene and early medical response while treating suspected patients in local clinics. A team approach with district-level health workers educating the local community on safe hygiene practices relating to food and water can be highly effective. However, a major concern voiced by the trainers was the lack of training and appropriate PPE to protect healthcare workers early in an outbreak. In resource-limited environments, such as district-level hospitals, primary prevention of infectious diseases is of the utmost importance. In the clinic setting, regular hand hygiene was emphasized during the training, but course feedback indicated that a generational behavioral change among physicians will be one of the most important factors in increasing compliance.

*Article by Capt. Edris L. Staples, Division of Medicine*

## USAMMCE Displays Medical Products, Knowledge at Local 'State Fair' in Germany

Approximately 250,000 visitors flocked to the city of Pirmasens, Germany, to enjoy the festivities surrounding this year's "Rhineland Pfalz Tag." This year marked the 250th birthday of Pirmasens, USAMMCE's host nation community.

Since 1983, a different city in the German state of Rhineland Pfalz has been hosting this annual event, which includes a variety of displays, dance performances, games, and local music.

Traditionally, the German and the American Military Forces put on displays for the public and take turns hosting a military reception. Maj. Gen. Aundre F. Piggee, Commanding General of the 21st Theater

Sustainment Command (21st TSC) hosted this year's reception.

The Clinical Engineering Division sponsored a USAMMCE display that included an IV pump, a patient monitor, a portable defibrillator, and a ventilator along with its test measure and diagnostics equipment.

Spec. Christopher Hill, a USAMMCE staff member who helped demonstrate the equipment, said, "It was a good way to show ourselves to the community."

*Article by Doris Crittenden, USAMMCE PAO*

## USAMRMC Meets with Royal Thai Army Delegation



Brig. Gen. (who has since been promoted to Maj. Gen.) Joseph Carvalho Jr., U.S. Army Medical Research and Materiel Command and Fort Detrick commanding general, met with Lt. Gen. Phanuvich Pumhirun, M.D., Surgeon General of the Royal Thai Army and Medical Field Service School commanding general, along with a delegation of Royal Thai Army leadership officials at USAMRMC Headquarters May 14. Following the meeting, Carvalho and Pumhirun exchanged small symbols of friendship between the two countries. Left to right in the photo are Command Sgt. Maj. Kevin Stuart, USAMRMC command sergeant major; Brig. Gen. (P) Joseph Carvalho Jr., USAMRMC and Fort Detrick commanding general; Lt. Gen. Phanuvich Pumhirun, M.D., Surgeon General of the Royal Thai Army and Medical Field Service School commanding general. (Photo by Jeffrey Soares, USAMRMC PAO)

## Natick Soldier Makes Marathon Debut in Tribute to Boston Victims

Running as a tribute to those affected by the Boston Marathon bombing, Maj. Owen Hill made a memorable marathon debut of his own on Mother's Day.

Hill, deputy chief of the Military Performance Division, U.S. Army Research Institute of Environmental Medicine at Natick Soldier Systems Center, ran the 2013 Cox Sports Marathon in Providence, R.I., in an impressive 3 hours, 34 minutes, 34 seconds.

"I think I ran it well," said Hill, adding that he maintained a pace of 8 minutes, 11 seconds per mile, "and never walked once. Not too shabby for a rookie."

Hill, 43, ran his first marathon with just two weeks of training as a way to honor those killed, injured and otherwise affected by the attack in Boston. He missed his goal of qualifying for the 2014 Boston Marathon by a mere 19 minutes.

Hill said he won't stop trying to meet the qualifying standard of 3:15 for the 40-44 age group.

"I will continue to train, and I plan to run another marathon again before September in an attempt to qualify for the 2014 Boston Marathon," Hill said.

Hill added that he won't soon

forget the day, which he dedicated to bombing victims who could no longer run for themselves.

"Overall, it was a profoundly memorable event and a significant achievement," he said. "During the run, I certainly reflected on all of the individuals directly affected by the Boston Marathon bombings, which added to the magnitude of the moment."

Article by Bob Reinert, USAG-Natick Public Affairs

*"Overall, it was a profoundly memorable event and a significant achievement."*

Maj. Owen Hill, Deputy Chief of Natick's Military Performance Division, referring to his first marathon run in honor of the Boston marathon bombing victims.



Maj. Owen Hill of the U.S. Army Research Institute of Environmental Medicine, Natick Soldier Systems Center, stands with girlfriend Jesse-Lee Lavoie at the finish line of the Cox Sports Marathon in Providence, R.I. Hill ran the May 12, 2013, race in a tribute to Boston Marathon bombing victims. (courtesy photo)

## USAMMCE Soldier Takes Top Award

The 70k Consultant to the Surgeon General of the Army announced Sgt. Jason Roth of the U.S. Army Medical Materiel Center, Europe, as one of the winners of the calendar year 2012 Professional Medical Logisticians Leadership and Civilian Awards.

These awards are given to Army Medical Service Corps personnel who demonstrate exceptional skills and accomplishments in leadership, technical competence, professionalism, and patriotism.

Roth works as a 68A Biomedical Equipment technician in the Clinical Engineering Division of USAMMCE.

According to Master Sgt. Timothy Dess, the Non-Commissioned Officer in Charge of the USAMMCE CED, Roth is a top-notch NCO who has demonstrated leadership and possesses technical competence well above his grade level.

Roth's accomplishments include realigning maintenance schedules for eight USAMMCE customers, resulting in achieving a 100 percent completion rate, which exceeds the U.S. Army Medical Command standard of 97 percent. He also led a team that completed 723 medical equipment work orders during six temporary duty missions throughout Europe. Through his knowledge, Roth contributed greatly to USAMMCE being named runner-up for the Army Award for Maintenance Excellence.

During 2012, Roth earned the Expert Field Medical Badge, was named USAMMCE NCO of the Year, and received the Army Physical Fitness Badge.

"I have to say that I honestly didn't think I had a shot in the dark to win this, because I can think of



Sgt. Jason Roth, a 68A Biomedical Equipment technician in the Clinical Engineering Division of USAMMCE, earned a 2012 Professional Medical Logisticians Leadership and Civilian Award. (Army Photo)

three other Alphas at USAMMCE who could've won this too," said Roth. "There are so many good Alphas out there."

He went on to say that he is very proud to represent USAMMCE, and that he feels honored to receive this award.

Roth will receive a Memorandum of Commendation and a coin from the Surgeon General, as well as an Army Commendation Medal and a MEDCOM G-4 Letter of Appreciation and coin.

This is the second consecutive year that a USAMMCE soldier has won this award.

Article by Doris Crittenden, USAMMCE PAO

# Injured Infantryman Builds New Life

Most 8-year-old kids don't know what they want to be when they grow up. That wasn't the case with Douglas F. Cianchetta. At that age, he was taken to a naval base in Norfolk, Va., to witness the christening of a ship—a guided missile destroyer named after his grandfather's cousin, Donald Cook. That was the first time the 8-year-old native of New York saw a United States Marine. From that point, Cianchetta knew that he wanted to be a “Devil Dog.”

Cianchetta attended recruit training in June 2005 and then went on to the Infantry Training Battalion course to become an infantryman. “I didn't want to do anything but infantry,” Cianchetta said.

Three years later, Corporal Cianchetta was a fire team leader with the Marine 24th Expeditionary Unit, 1st Battalion, 6th Marines Alpha Company, leading a group of Marines in the Helmand Province of Afghanistan. After a helicopter insert into an Afghan village to search for weapons, his team took on small arms and automatic weapons fire and came across a weapons cache where the pointman discovered a bag containing purple powder. Cianchetta took the bag and ordered his team back while he inspected it.

“It was booby trapped with

an IED [improvised explosive device] that lit me on fire,” he said.

His arms, sides, back and legs were burned—in all, 48 percent of his body had been incinerated. Cianchetta was medically evacuated to San Antonio where he spent 9 months as a patient at the U.S. Army Institute of Surgical Research Burn Center at Fort Sam Houston, Texas. For almost 2 years after being discharged from the Burn Center, he spent his time rehabilitating and undergoing reconstructive surgeries as an outpatient. His goal was to recover and stay on active duty as an infantryman.

That didn't happen. During a medical board brief to determine whether Cianchetta could stay in active duty as an infantryman, Burn Center Physician's Assistant, Charles “Kelley” Thompson, explained his options now that his right pinky had been amputated and the limitations burn scars have on a body.

“I was given the option of staying in, but not as an infantryman,” said Cianchetta. “It was a very difficult decision, but I felt that I had to leave because at that point I didn't feel that I was in the best shape to give 100 percent to the Corps. I was still recovering, and it was going to be a long road before I returned to the infantry. I didn't

want to do anything but infantry, so I decided to leave.”

During the same brief, Thompson asked Cianchetta what he wanted to do when he got out.

“I want to be a policeman,” he said.

“I told him that he may want to reconsider that career because it could be very difficult to achieve,” said Thompson, who spent several years in law enforcement.

Persistent on setting a goal, Cianchetta told Thompson that he was going to do it.



Douglas F. Cianchetta served as a Marine Corporal and was injured by an improvised explosive device. He medically separated from the military and became a law enforcement officer in San Antonio, Texas.

## Life after the Marines

“My wife has been a big inspiration for me from the day I met her,” he said.

The road to the couple's encounter had been paved long before they met. While an outpatient, Cianchetta and other wounded warriors were invited on a hunting trip in West Texas at the ranch of Charles Lackey where he met Lackey's sons, Craig and Brad. He and Craig hit it off and became best friends. When Cianchetta moved back to New York in 2010, the economy was in shambles and hundreds of New York Police Department police officers were being laid off. The prospect of being on the NYPD was slim.

So after 5 months of being home, and before pursuing his goal of becoming a police officer, Cianchetta decided to go on a road trip to visit Marines from his unit. The trip took him to Virginia, Florida and Alabama, and ultimately ended in San Antonio with a visit to the Lackeys' ranch. That's when he decided to stay in Texas.

“I told him [Craig] that I did not want to go back home,” he said. “Craig told me to stay with them until I figured out what I was going to do.”

As a public works director, the elder Lackey knew about the Alamo Area Regional Law Enforcement Academy. Cianchetta applied for and was accepted to attend the academy, and began training in January 2011. While waiting for the training to commence, Cianchetta went out with a group of hunters on the

Lackey's ranch. While on that hunting excursion, one of the hunters suddenly fell ill and died. It was at his funeral where he met Hannah Thompson.

“I saw her sitting alone, and I started talking to her,” said Cianchetta. “I immediately felt something that I had never felt before in my life.”

“It was interesting,” said Hannah. “I knew something significant had just happened.”

“We like to say that it was the end of one life and the beginning of another,” said Cianchetta.

Hannah said that her best friend's father, James, was a very charismatic person and would approve of their encounter. “He would have loved it,” she said.

A few days later, the couple got together to go out on their first date. “I went to her house to pick her up and meet her parents.”

The first thing he heard when he got to the front door was, “Corporal Cianchetta!” It was Thompson, the Burn Center physician's assistant who had cared for him and briefed him on his medical board.

## First Date & Life After

When asked what it was like seeing Thompson again, Cianchetta said, “It was breathtaking. I was nervous. I didn't know what to say.

It's not like they hadn't talked before. Thompson had been



Cianchetta, his wife Hannah, and their daughter.

at his bedside countless times talking to him about the type of treatment or medications he needed. But this time it was different.

“He [Thompson] was supportive of our relationship from the start,” said Cianchetta.

After a few months of dating, the peace officer trainee proposed. “At first, he [Thompson] told me no.”

His persistence paid off, however, and the couple married in April 2012. They now have a baby girl.

Furthermore, Cianchetta achieved another one of his goals when he was hired as a patrolman in October 2011 with the Windcrest Police Department, a suburb of San Antonio.

“Life is great,” said Hannah. “I'm very happy and I couldn't imagine anything different.”

Cianchetta added, “The Corps taught me from day one to never quit.”

*Article and photos by Steven Galvan, USAISR PAO*



## USAISR Burn Center Receives FDA Clearance for Burn Resuscitation Technology

For the first time in its 70-year history, the U.S. Army Institute of Surgical Research (USAISR) at Joint Base San Antonio-Fort Sam Houston received 510(k) clearance from the U.S. Food and Drug Administration (FDA) for a medical device developed at the USAISR. The clearance for the Burn Navigator or Burn Resuscitation Decision Support System-Mobile (BRDSS-M) was announced by the FDA Director of Preparedness/Operations and Medical Countermeasures at the Center for Devices and Radiological Health Dr. Suzanne Schwartz during the 2013 American Burn Association 45th Annual Meeting at Palm Springs, Calif., April 23-26.

“This technology is the first of its kind algorithm-based decision assist system for use in managing fluid resuscitation of the severely burned patient,” said Schwartz. “We consider this a milestone, but even more than that, a peek into what the future has in store for burn trauma management.”

USAISR Research Task Area Program Manager for Comprehensive Intensive Care Research Jose Salinas, Ph.D, helped develop the BRDSS algorithm which generates recommendations of fluid intake for burn patients. It was designed to assist in avoiding problems related to over- or under-resuscitating by medical care providers who do not routinely care for burn patients. The original BRDSS technology was developed for use at the USAISR Burn Center Intensive Care Unit (BICU) about seven years ago. According to Salina, it has been invaluable with assisting medical providers with resuscitation management and has been shown to improve patient outcomes.

“If you give a patient too much or too little fluid, the results can be fatal,” explained Salinas, describing the complex care necessary for burn patients who are often dehydrated and require precise rehydration.

Maria Serio-Melvin, MSN, USAISR clinical program coordinator for computer decision support systems and co-chair of the integrated product team that is fielding the system, added that there are a lot of competing priorities when caring for burn patients.

“Our goal is that this device will help keep medical providers on track with one of the most important things that they need to do—hourly fluid titration based on urine output,” said Serio-Melvin.

The Burn Navigator is designed to be used in a deployed setting by non-burn experienced nurses and doctors. The software is in a mobile tablet that meets military specifications.

“An additional benefit of the system is that it’s not only a decision support system; it’s also a graphical interface of the trends of how the patient is doing,” said Salinas. “So even without the decision support part of it, medical providers can look at the display and see how the patient is progressing and use that to help better manage the burn patients.”

The Burn Navigator is expected to be used soon by the Army at deployed Combat Support Hospitals (CSHs), which support overseas contingency operations in Iraq and Afghanistan.

The Burn Navigator technology was licensed to Arcos Medical, Inc. of Houston, which worked with the USAISR to submit the FDA 510(k) application with funding from the U.S. Army Medical Research and Materiel Command (USAMRMC) at Fort Detrick, Md. The USAISR is a subordinate research

command of USAMRMC, which is a major command in the Army that leads efforts in support of the full life cycle of medical supplies and equipment, to include research, development, acquisition and sustainment. The research part of the mission is executed through its laboratory commands like the USAISR and extramurally.

Companies such as Arcos, Inc. produce commercial devices, including the Burn Navigator, for use by the Army and at civilian burn centers throughout the world.

*Article by Steven Galvan,  
USAISR PAO*



USAISR Research Task Area Program Manager for Comprehensive Intensive Care Research Jose Salinas, Ph.D., and Maria Serio-Melvin, MSN, USAISR clinical program coordinator for computer decision support systems and co-chair of the integrated product team that is fielding the Burn Navigator which recently received 510(k)FDA clearance. (Photo by Steven Galvan, USAISR)



## HQ Company Changes Command

The U.S. Army Medical Research and Materiel Command Headquarters Company held a Change of Command ceremony at Fort Detrick, Md., May 22. Capt. Sumesh Sagar relinquished command to Capt. Kathryn Repucci. (Photo by Visual Information Specialist Sig Bruner)



## USAMRICD Staff Receives Career Recognition

Several employees of the U.S. Army Medical Research Institute of Chemical Defense (USAMRICD), Aberdeen Proving Ground, Md., were recognized by the Baltimore Federal Executive Board's 2013 Excellence in Federal Career Awards Program.

Drs. Robert Kan, Heidi Hoard-Fruchey, and Erik Johnson lead the Molecular Pathology Team, which won gold in the category Technical, Scientific & Program Support-Team. A diverse group of civilians, military personnel and contractors, team members include Catherine Braue, Cristin Rothwell, and Thuy Dao; Sgt. Stacey Swayze, Spec. Wei Niu, and Spec. Kevin Laitapaya; post-doctoral associate Dr. Echechumba Yego; and Oak Ridge Institute for Science and Education (ORISE) interns Jessica Leuschner, Shane Kaski, Darryl Glotfelty, James Irwin, and Michelle Guignet. The award recognized the group's contributions and accomplishments in understanding nerve agent toxicity, pathology progression and potential treatment mechanisms, their mentorship of future scientific leaders, and their community service.

Dr. Tamara Otto received her gold award for Rookie of the Year - Technical Scientific and Program Support. Her nomination described her as "a dedicated, highly engaged, and extremely productive scientist and role model." It cited her independent research projects as well as her contributions to a team effort to develop bioscavenger treatments for nerve agent poisoning. In addition, Otto actively supports science, technology, engineering

and mathematics (STEM) education, and has hosted in her laboratory two high school seniors from the Aberdeen High School Science and Mathematics Academy, mentoring them in their Capstone research projects.

Capt. Baishali Kanjilal's silver as Outstanding Supervisor recognized her accomplishments as chief of USAMRICD's Pharmacology Branch, as well as her performance of the duties as chief of the Collaborative Research Facility. In these positions, she supervised 47 employees and managed a budget of over \$16 million. In addition to her supervisory duties, Kanjilal continued her own research projects in the cellular modeling of nerve agent toxicity.

Dr. Douglas Cerasoli, silver winner in the Outstanding Professional category, has distinguished himself through not only his critical research on bioscavenger medical countermeasures, but also his superior mentorship, numerous collaborations with external organizations, and diplomatic representation to funding agencies and government institutions. He leads the institute's DoD research on the development of bioscavengers, as well as a multi-institute grant from the National Institutes of Health's Countermeasures Against Chemical Threats (CounterACT) program.

Outstanding Para-Professional silver awardee Daniel Boehm is a field medical education specialist in USAMRICD's Chemical Casualty Care Division, where he provides exceptional support of the division's three main in-residence, post-graduate courses as part of a

\$1.9 million dollar graduate and advanced medical education program conducted at the institute. His nomination noted his "ongoing resourceful efforts to infuse training with innovative, quality instruction," which contributes to the high praise the training continually receives from course attendees. These efforts include the introduction of new state-of-the-art moulage application set-up stations for increased battlefield casualty realism in course exercises and incorporation of an advanced cooling system to increase students' safety while they are wearing heat-burdensome chemical protective suits.

Retired principal investigator Dr. William Smith received his silver in the Distinguished Public Service Career category. Smith was recognized for his extraordinary 28-year career in federal service that was characterized by critical advances in medical countermeasures to chemical warfare agents, superior mentorship to subordinates, and selfless service to the institute.

Bronze awards went to Wanda Waldon, Outstanding Administrative Assistant, Susan Schulz, Outstanding Para-Professional, Kenneth Snyder, Outstanding Supervisor, and the Sharp team, Outstanding Administrative Assistant - Team. USAMRICD's SHARP team consists of Maj. Venee Morthole, Sgt. 1st Class Rhonda Odom, Staff Sgt. Zachary Phillips, Ed Turner, and Jovon Harris.

*Article by USAMRICD PAO*

## MEDCOM Acquisition Career Management Advocate Assumes Role

Dawn L. Rosarius, Civilian Deputy, Principal Assistant for Acquisition for the U.S. Army Medical Research and Materiel Command, Fort Detrick, Md., received her official charter as the new Acquisition Career Management Advocate for the U.S. Army Medical Command May 1. Having joined the USAMRMC in 1993 in a contractor support role, Rosarius became a Civilian staff member in 1998 when she began work for the U.S. Army Medical Materiel Agency. In 2008, she accepted the position of director of the Plans, Programs, Analysis & Evaluation Directorate at USAMRMC headquarters. As the sole ACMA for the MEDCOM, Rosarius has quite a task ahead of her.

"My role as the ACMA is to ensure that the MEDCOM personnel receive their certification within their two-year period, and then sustain that certification with CLPs [Continuous Learning Points]," said Rosarius. "Along with Ash Ficklin and Chris Houck, together we track all acquisition personnel throughout the MEDCOM to keep them, and their supervisors, up-to-date with the requirements necessary to obtain and sustain certification."

Many throughout the MEDCOM will benefit from Rosarius' new role, as she along with Ficklin and Houck monitor the certification files of every employee assigned to an acquisition position in the various acquisition fields. However, this new responsibility will add quite a bit of work to the already full plate Rosarius maintains.

"Actually, I think this could be a full-time job initially, because there are many things we must do at this point to make sure everyone is current in their certifications," she said. "I would say that about 10 percent of my daily work will involve the ACMA function."

Rosarius also said that selecting the new ACMA from the USAMRMC was intentional, as the USAMRMC's commanding general, Brig. Gen. (P) Joseph Carvalho Jr., serves also as the Deputy for Medical Systems to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology. Keeping the two roles in close proximity under the roof of USAMRMC headquarters is both practical and advantageous, and should provide much clout



Tom Evans from the U.S. Army Acquisition Support Center presents Dawn L. Rosarius, Civilian Deputy, Principal Assistant for Acquisition, USAMRMC, with her official charter as the new Acquisition Career Management Advocate for the U.S. Army Medical Command May 1. (USAMRMC photo)

for ensuring that all employees maintain their necessary certifications and do not fall delinquent.

Although USAMRMC's acquisition workforce is a major focus of the ACMA's efforts, many other offices throughout the MEDCOM employ men and women that conduct acquisition functions on a daily basis. Among these are program management, contracting, information technology, purchasing, science and technology, production quality management, and life cycle logistics. Clearly, the acquisition process touches practically every functional area throughout the MEDCOM.

As the new ACMA and deputy PAA, Rosarius looks forward to the days ahead with much enthusiasm.

"I'm very excited about working in the PAA office and learning much from Dr. [Kenneth] Bertram [Principal Assistant for Acquisition], gaining insight from others on the team as well as the PMs [product managers]," she said. "I used to work in a type of PM role at USAMMA, so I am excited about getting back to the 'roots' and working with some of our new devices that can help our warfighters."

*Article by Jeffrey Soares, USAMRMC PAO*



## USAMRICD Opens Lactation Rooms

The U.S. Army Medical Research Institute of Chemical Defense officially opened newly renovated space in May to provide an appropriate area for USAMRICD employees who are nursing mothers. The creation of the Wellness Center for Nursing Mothers was driven by concerns expressed during a January sensing session between the commander and the institute's female staff members. The question of lactation rooms was initially raised concerning the replacement facility under construction, but quickly led to a discussion on the inadequacy of the designated room in the current facilities and how more than one room was needed.

"It became clear," said Col. Bruce Schoneboom, USAMRICD's commander, "that the space we had was not appropriate, nor did it really meet the intention of the Patient Protection and Affordable Care Act."

The ACA revises the Fair Labor Standards Act, requiring employers to provide a suitable location and break period in which nursing mothers can express breast milk.

Efforts began immediately to locate and renovate appropriate space. Facilities manager Denise Hott, from USAMRICD's Logistics Office, was instrumental in identifying the rooms and getting the renovations completed in a short period of time. Schoneboom presented Hott with an institute coin at the Wellness Center ribbon cutting in appreciation of her efforts.

The new space is located in E3100, the USAMRICD's headquarters building. The Logistics Office enclosed two small rooms in an area adjoining one of the women's restrooms, thereby providing an available source of water for washing breast shields, bottles, and other items. New faucets were installed on the sinks to better accommodate the washing of these items, as were new shelves above the sinks. The two lactation rooms were

each fitted with new lighting, an electrical outlet, a countertop and a chair. Doors on the rooms lock to give the occupant privacy.

Many professional health care associations, Schoneboom noted, support breast feeding infants for up to 12 months if possible, but at least for the first 6 months, because it has been shown to improve the babies' health. One the barriers preventing mothers from breast feeding for as long as is recommended, is the lack of facilities in the workplace.

"Babies are healthier, families are healthier, and our nation is healthier, as a result," said Schoneboom of being supportive of a mother's choice to breast feed her baby. "Providing this space is the right thing to do and makes sure that we follow through with the intent of the law."

While none of the institute's employees are currently nursing mothers, that's about to change in the next few months, with one new mother currently on maternity leave and several other employees expecting. The soon-to-be mothers are excited about the new lactation rooms.

"The rooms are really nice," said biologist Cristin Rothwell, who is expecting her first child at the end of June. "We're very appreciative of what the institute has done. It's one less thing to worry about when your maternity leave is over and you're back at work."

Research biologist Heidi Hoard-Fruchey, Ph.D., who got the whole discussion started at the sensing session, was appreciative of how quickly the commander and his Logistics staff addressed the issue. Hoard-Fruchey has had two children, now 7 and 4, during her tenure at the USAMRICD and remembers the awkwardness of having to find a private place to express milk when she came back to work while still breast feeding each of them.

"They've done really well here. The set up is great," she remarked on viewing the renovated space.

To coincide with the opening of these new lactation rooms, the USAMRICD also published a policy on providing a "reasonable break time and space for expressing breast milk at work." The policy defines responsibilities and procedures, and also designates the building custodian as the individual who oversees scheduling of the lactation rooms.

*Article by Cindy Kronman,  
USAMRICD PAO*



Mother-to-be, biologist Cristin Rothwell joins Col. Bruce Schoneboom, USAMRICD commander, to open the institute's newly renovated lactation rooms. (Photo by Darrell Jenson, USAMRICD)

## NMHM Participates in 'Blue Star' Program

For a third year, the National Museum of Health and Medicine (NMHM) will participate in the Blue Star Museums initiative and offer free admission to museums for all active-duty military service members, including Army, Navy, Air Force, Coast Guard, Marines, National Guard and Reserve members, and up to five family members, from Memorial Day through Labor Day (Sept. 2, 2013).

Blue Star Museums, which was first launched in the summer of 2010 to show appreciation to those who serve and their families, is a collaboration among the National Endowment for the Arts (NEA), Blue Star Families, the Department of Defense (DoD) and museums across the country. This summer, more than 2,000 museums are participating in Blue Star Museums. Blue Star Families is a nonprofit organization that supports, connects and empowers military families.

"Blue Star Museums is a collaboration between

the arts and military communities," said NEA Acting Chairman Joan Shigekawa. "Our work with Blue Star Families and with more than 2,000 museums ensures that we can reach out to military families and thank them for their service and sacrifice."

NMHM is celebrating its 151st anniversary at its new home in Silver Spring, Md., with exhibits that focus on advances in military medicine, the Civil War, the brain, anatomy and pathology, forensic identification and more. This summer, NMHM will have a number of programs that will focus on topics such as the Civil War, sports and anatomy, reconstructive plastic surgery in World War I, "quack medicine," and more.

For more information about Blue Star Museums and a full list of participating museums, visit [http://www.bluestarfam.org/Programs/Blue\\_Star\\_Museums](http://www.bluestarfam.org/Programs/Blue_Star_Museums).

*Article by Melissa Brachfeld,  
NMHM PAO*

## DCoE Welcomes New Director

The Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) hosted a ceremony to welcome Navy Capt. Richard Stoltz as its new director, May 17.

DCoE oversees three centers, including the Defense and Veterans Brain Injury Center, the Deployment Health Clinical Center, and the National Center for Telehealth and Technology, with a combined mission to improve the lives of our nation's service members, families and veterans by advancing excellence in psychological health and traumatic brain injury prevention and care.

"Providing world-class health care and rehabilitation for our warfighters is more than a priority; it is a promise that we make when we send them into harm's way," said Brig. Gen. (since promoted to Maj. Gen.) Joseph Carvalho Jr., commanding general of the U.S. Army Medical Research and Materiel Command (USAMRMC), who presided over the ceremony. "This care would not be possible without medical research and development, and our investment in tomorrow's technologies."

Stoltz, a clinical psychologist, assumes leadership following assignments as commanding officer of Naval Hospital Guantanamo Bay, and commander of the Joint Medical Group, Joint Task Force Guantanamo Bay. In these roles, he commanded all medical care provided at Guantanamo Bay which included the Naval Hospital, Detention Hospital, Inpatient Behavioral Health Unit, and multiple medical clinics.

His earlier positions included executive officer of the Addictions Rehabilitation Center at Norfolk Naval Station; deputy director of clinical operations at the Navy Bureau of Medicine and Surgery (BUMED); director of Behavioral Health Services at the National Naval Medical Center (NNMC); director of women's, children's, emergency room, behavioral health and primary care services at NNMC; assistant chief of staff at BUMED; officer-in-charge of the Naval Branch Health Clinic - Bahrain; and executive officer of Naval Health Clinic - New England.

"Improving the psychological health and traumatic brain injury care our service members receive is of the utmost importance," Stoltz said. "I am looking forward to the opportunity to continue to create meaningful and positive change as I take the helm of DCoE."

Stoltz succeeds Navy Capt. Paul S. Hammer, who has served as DCoE director since January 2011. During his tenure, Hammer worked diligently to restructure DCoE into a strategically focused, results-oriented organization focused on providing timely, high-quality clinical guidance, clinical tools, information and resources to improve the lives of service members, veterans and their families living with traumatic brain injury and psychological health concerns.

As a direct result of Hammer's leadership, DCoE was awarded a Joint Meritorious Unit Award by the Defense Department in 2012 for making, "a profound impact on the medical treatment, care and advocacy of our wounded warriors and their families — from innovative educational programs to vast improvements in communications programs to promoting the awareness and availability of programs across the Department of Defense," according to the citation. Most recently, DCoE transitioned to an executive agent under USAMRMC which provides oversight and operational support functions including logistics, information management and information technology, public affairs and legal support.

"It has been an honor to lead DCoE, guide the creation of numerous clinical recommendations and tools, and oversee the development and implementation of multiple programs that are profoundly improving the system of care for our service members, veterans and their families," Hammer said.

Hammer departs DCoE to serve as commanding officer of the Navy Medicine Information Systems Support Activity in San Antonio, Texas.

Article by DCoE PAO

## Burn Center Evaluated, Commended by National Organizations

The U.S. Army Institute of Surgical Research Burn Center located within the San Antonio Military Medical Center at Joint Base San Antonio—Fort Sam Houston, Texas, recently received re-verification by the American Burn Association and the American College of Surgeons Committee on Trauma.

"In order to maintain the highest possible standards of healthcare, the center voluntarily requests review and assessment by professional organizations to evaluate its performance," said Burn Center director, Col. (Dr.) Evan Renz. "The Verification Committee representing these two national organizations commended the Institute for its commitment to excellence and its commitment to providing quality burn care to its patients."

The ABA is dedicated to improving the lives of everyone affected by burn injury. With more than 3,500 members worldwide, the ABA and its members dedicate their efforts and resources to promoting and supporting burn-related research, education, care, rehabilitation, and prevention.



Members of the Verification Committee (left) representing the American Burn Association and the American College of Surgeons Committee on Trauma listen to a pass down from University of Texas Health Science Center San Antonio medical student Sarah Mitchell during Burn Intensive Care Unit rounds May 15. (Photo by Steven Galvan, USAISR public affairs)

The ACS is devoted to developing and implementing meaningful programs for trauma care in local, regional, national, and international arenas through education, professional development, standards of care, and assessment of outcomes.

As the sole burn center for the Department of Defense, the USAISR Burn Center is one of the Nation's largest, with approximately 800 annual admissions. It is also one of approximately 60 centers in the United States to receive verification by these prestigious organizations.

Since 2003, the Burn Center has cared for more than 975 wounded warriors evacuated from Iraq and Afghanistan, and more than 3,000 civilian emergency patients from the South Central Texas region. The Burn Center employs approximately 300 staff members (Army, civil service, and contractors) with multiple critical burn care skills. The

USAISR is a subordinate command of the U.S. Army Medical Research and Materiel Command. The mission to "optimize combat casualty care" is accomplished by conducting science and clinical research in the fields of damage control resuscitation, hemostasis, engineering, and tissue regeneration affecting combat casualties, to include burns.

"General Carvalho [USAMRMC commander, Maj. Gen. (Dr.) Joseph Carvalho Jr.] and I are extremely proud of the re-verification," said USAISR commander, Col. (Dr.) Michael A. Weber. "This achievement is a testament of our commitment to providing the best possible care for our patients and recognition of the enduring value returned on the investments by the Medical Research and Materiel Command and the U.S. Army Medical Command."

Article by Steven Galvan, USAISR PAO



# 'Heroes of Military Medicine' Awardees

Three individuals who have distinguished themselves through excellence and selfless dedication to advancing medicine for our nation's wounded, ill and injured service members, veterans and their families won the Heroes of Military Medicine awards.

## Army Col. Nelson L. Michael, MD, PhD

Col. Michael exemplifies excellence in public service. His leadership in Human Immunodeficiency Virus (HIV) and infectious disease research has impacted both the military and global communities. His career has focused on developing an effective HIV vaccine to protect U.S. and Allied Armed Services, and to reduce the global impact of the disease. He has been a researcher with the U.S. Military HIV Research Program at the Walter Reed Army Institute of Research for 23 years, and has been its director since 2006. Under his leadership, the program has grown in scope and diversity, and has forged extensive international collaborations. He guided MHRP through the completion of the RV144 HIV vaccine study in Thailand, which showed that a preventive HIV vaccine is possible. A Professor of Medicine at the Uniformed Services University of the Health Sciences, he also serves on the Presidential Commission for the Study of Bioethical Issues.

## Air Force Lt. Col. Raymond Fang, M.D., FACS

Lt. Col. Fang is a trauma surgeon and recent director of the US Air Force Center for Sustainment of Trauma and Readiness Skills at the University of Maryland's Shock-Trauma Center, Baltimore, Md. A combat proven warrior, Lt. Col. Fang has deployed multiple times in support of activities in Iraq and Afghanistan, flying more than 200 primary hours as a Critical Care Air Transport Team Physician. Under his leadership, 63,000 patients from 44 nations evacuated from U.S. Central Command to Landstuhl Regional Medical Center, where Lt. Col.

Fang and his team treated 12,000 combat casualties over a six-year period, with an astounding 99.5 percent survival rate.

## Hospital Corpsman 1st Class Darrel L. Enos, USN (posthumously awarded)

As a dedicated Hospital Corpsman and Independent Duty Corpsman, Hospital Corpsman 1st Class Enos was selflessly committed to the health and well-being of his fellow Marines and Sailors. He placed himself in harm's way countless times while providing the best possible care for patients wounded while serving in Iraq and Afghanistan. Enos's dedication to furthering his education in military medicine consistently improved his cutting edge instructions to all he trained, and allowed him to deliver the best possible care for all of his patients. Enos's utmost devotion to duty earned him the highest respect from the Marines, Sailors and civilians with whom he worked. On August 17, 2012, while conducting combat operations in support of Operation Enduring Freedom, Afghanistan, Enos gave his life for his country.

In addition, two awards were given to senior leaders in military medicine:

### Lifetime Achievement

The Honorable James B. Peake, M.D. was honored with the Lifetime Achievement Award. This honor acknowledges his long-term commitment to the greater good of our nation and its security, and to the brave men and women who serve in uniform. The award recognizes Secretary Peake's steadfast commitment to public service and his unparalleled dedication and stalwart leadership in advocating and advancing DoD and VA medicine.

### Senior Leader Award

Gen. Joseph F. Dunford, Jr., U.S. Marine Corps received the Hero of Military Medicine Senior Leader Award. This award honors Dunford's outstanding

contributions and tireless dedication to ensuring that America's warriors and their families receive the most innovative medical care and far-reaching support our nation can provide.

### About the Hero of Military Medicine Award:

This award is sponsored by the Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. (HJF), a private, not-for-profit organization established in 1983 and authorized by Congress to support medical research and education at the Uniformed Services University of the Health Sciences and throughout the broader military medical community. For more information, visit [www.hjf.org](http://www.hjf.org). The Center for Public-Private Partnerships at HJF bridges the federal and private sectors and expands the network of health resources available to our nation's service members, veterans and their families.

For more information, visit [www.hjfc3.org](http://www.hjfc3.org)

### USAMRMC

**Meritorious Service Medal**  
LTC Mark Dole  
Capt. Jeffry Froude

**Army Commendation Medal**  
MSG Ruth Warren  
Capt. Bruce Barnes

### USAMRIID

**Meritorious Service Medal**  
COL Sherman McCall  
SSG William Robinson  
SSG Antonio Sessoms  
SSG Jesse Stephens  
SFC Reginald White  
Capt. Craig Thompson  
COL Fernando Guarena  
LTC Shelley Jorgensen  
Maj. Kurt Jerke  
Maj. Yun Fan  
LTC Carrie Benton  
LTC Shelley Jorgensen  
PCS Michael Ingram  
LTC Max Teehee  
LTC Wendy Sammons Jackson

**Army Commendation Medal**  
SGT Duane Padilla  
Sgt. Raymond Stanford  
SPC Julia Puente  
SGT Aidaliza Pantoja-Bobe

### WRAIR

**Meritorious Service Medal**  
SFC Glen Collins  
COL Stephen Dalal  
COL Roberts Gibbons  
Maj. Marlene Gubata  
SFC Corey Powell  
LTC Viseth Ngauy  
LTC Eyako Wurapa

**LM**  
COL Ralph Erickson  
COL Max Grogl  
COL Christian Ockenhouse

### USARIEM

**Meritorious Service Medal**  
Sgt. David Arvizo  
SSG William Mills  
Capt. Jarrett Heffner  
LTC Timothy Haley

### USAMMA

**Meritorious Service Medal**  
SFC Larry Campbell  
Maj. Stephen Flannery  
LTC Jonathan Edwards  
Maj. Michael Bukovitz

### USAMMCE

**Meritorious Service Medal**  
SFC Jenifer Miller  
Maj. Steven Meadow  
LTC Christopher Todd

### USAARL

**Certificate of Appreciation**  
Spc. Roddricus Allen  
Spc. Jinyong Bae  
Spc. Josh Beech  
Sgt. Hosea Bickerstaff  
Sgt. Arlene Breaux-Waltz  
Spc. Yesenia Contreras  
Catherine Davis  
Jill Emerson  
Bob Eshelman  
Jeaneen Hayes  
Robert Haygens  
Spc. Dong Kim  
Spc. Sylvan Larson  
Spc. Brian Laskowski  
Spc. Daniel Lopez  
Staff Sgt. David Lopez  
Steve Martin  
Spc. Shantel McClendon  
Maj. David McLwain  
Stephanie Moon  
Spc. Hilary Phillips  
Dan Ranchino  
Sgt. Sarah Red  
Spc. Stanslaus Simiyu  
Spc. Josue Sosa  
Keagan Statz  
Katie Stokes  
Tammy Tate  
Maj. David Walsh  
Staff Sgt. Oris Webster  
Sgt. Amber Young

**Certificate of Achievement**  
Andrew Alvarado  
Sgt. Bridgette Terry  
Leslie Wills

**Army Achievement Medal**  
Maj. Tim Cho  
Spc. Daniel Lopez  
Sgt. Sarah Red  
Sgt. 1st Class Angela Williams

**Meritorious Service Medal**  
Capt. Michael Dretsch  
CW5 Leann Fraka  
COL William Statz

**Achievement Medal for Civilian Service**  
Andrew Alvarado  
Kelley Beavers  
Sherrie Davis  
Rose Jackson  
Robyn Madderra  
Debra McKinnon  
Jeff Miller  
Stephanie Moon  
Tammy Tate  
Leslie Wills

**Soldier of the Year**  
Sgt. Sarah Red

**Fifteen Years of Service**  
Dr. Robert Staton

**Commander's Award for Civilian Service**  
Jeremy Athy  
Jeff Miller

**LM**  
COL Dana Renta

**CSM Hustle Award**  
Spc. Monica Ang  
Spc. Jinyong Bae  
Sgt. William McGilberry  
Capt. Stephanie Traynham

**German Armed Forces Prof Badge**  
Spc. Jinyong Bae  
Spc. Joshua Beech  
Capt. Bradley Kistler  
Capt. Stephanie Traynham  
Sgt. Amber Young

### USAMRICD

**Meritorious Service Medal**  
Maj. Michael Berecz  
SSG Nicholas Rogers  
Capt. Baishalin Kanjital  
LTC David Sartori  
MSG Carlos Wright  
Maj. Venee Morthole  
Capt. Matthew Taylor  
LTC Greg Saturday  
Maj. David Cox

**Letter of Commendation**  
COL Richard Duncan

### USAISR

**Meritorious Service Medal**  
LTC Sandra Fresh  
SFC Jeffery Jenkins  
Maj. Mabel Salas  
COL Louis Stout  
MSG Vielka Abuzid  
Maj. Karla Clarke  
LTC Joseph Hsu  
SSG Juan Villegas-Cruz  
Capt. Natalie Collins

**LM**  
SGM Ella Lalone

### 6MLMC

**Meritorious Service Medal**  
MSG Antonio Rowe  
Maj. Peter Ramos  
Maj. Lolito Ganai  
LTC Marla Ferguson  
SFC Shlonda Calhoun  
Capt. Mark Norton  
Capt. Tericka Washington  
LTC David Sloniker  
Maj. Richardo Christopher

**LM**  
COL Michael Talley  
CW4 Terry Dover

### USAMMDA

**Meritorious Service Medal**  
LTC David Shoemaker  
LTC Travis Watson

### DCoE

**DSSM**  
Capt. Paul Hammer

# USAISR Hosts Mathematics, Science Camp

The U.S. Army Institute of Surgical Research (USAISR) hosted the Army's Gains in the Education of Mathematics and Science (GEMS) camp for 23 middle school students (interns) June 17-20 at Joint Base San Antonio—Fort Sam Houston, Texas. Sponsored and funded by the U.S. Army Medical Research and Materiel Command, the USAISR's parent command, and part of the Army's Education Outreach Program, GEMS is a laboratory-based camp that provides interns the opportunity to participate in scientific experiments and trains them in basic laboratory skills. The Army developed GEMS to offer summer educational activities for students who have an interest in becoming scientists.

This is the second year that the USAISR has hosted the four-day GEMS camp since the program began in the early 1990s at the Walter Reed Army Institute of Research in Washington, D.C.

With the assistance of the near-peer instructors, the interns were divided into six groups and each group conducted experiments to learn about electricity, cardiology, blood typing, types of bacteria, DNA, dentistry, and CSI techniques. The small-group structure allows the near-peers to interact one-on-one with the interns to enhance the learning experience.

"The activities are designed to get the students to do some critical thinking," said Texas State University student and near-peer mentor Vanessa Foster. The radiation therapy major said that she was impressed with the students' knowledge.

"They are all very smart," she said. "The activities are very challenging, and they all did a good job of accomplishing them. I've had a great time being their instructor."

Jonathan Melton, a University of Texas at San Antonio accounting major and near-peer mentor, said he's learning just as much as the interns in his group. "As an accounting major, I never knew any of this stuff," he said. "It's a better experience than I could have hoped for."

Eighth grade student and GEMS intern Justin Nguyen said that his favorite school subjects are



Justin Nguyen, a GEMS intern at the U.S. Army Institute of Surgical Research compares a bite mark and teeth impression during the mock crime scene investigation activity June 20.

math and science, but he is unsure of what major he wants to pursue when he gets to college. He is now considering majoring in math or science after enjoying some hands-on activities in the GEMS and encourages other students to experience the camp.

"It's great program," he said. "[It has] a lot of hands-on activities with fantastic instructors. It's also a great chance to meet new people and learn new things."

The plan is for the USAISR to host another GEMS camp (Level I for middle school students) next summer, and then host a Level II camp in 2015 for students entering grades 9 through 11.

"This is yet another way that the ISR gives back to the community," said Truss. "Hopefully this program promotes the desire for them [interns and near-peer mentors] to seek majors in these fields and seek future employment here or other research areas."

*Article and photo by Steven Galvan, USAISR PAO*