

The Point

A newsletter for and about the people of the
**U.S. Army Medical Research
and Materiel Command
Winter 2012**



“Topping Out” Ceremony Held for New USAMRIID Building

With a fanfare of bagpipe music, Fort Detrick officials celebrated the “topping out” of the new U.S. Army Medical Research Institute of Infectious Diseases facility Sept. 22. The ceremony is traditionally held to mark the placement of the final piece of steel in the building’s structure.

As Ted Baker, vice president of Manhattan Construction Company, put it, “The skeleton of the building is finished—now our mission is to breathe life into it.”

Approximately 800 people attended the event, which featured speakers from USAMRIID, the U.S. Army Corps of Engineers, the U.S. Army Health Facility Planning Agency, the U.S. Army Medical Research and Materiel Command, and the construction team of Manhattan Torcon Joint Venture.

Col. Stephen Wooldridge, commander of HFGPA, called the occasion “a milestone in a journey of excellence” and praised the team’s progress since breaking ground in August 2009.

According to Lt. Col. Hugh Darville, deputy commander of the USACE Baltimore District, the building is slated for beneficial occupancy in late November 2014. When complete, it will house the largest concentration of biosafety levels 3 and 4 laboratory space in the Department of Defense.



Following the topping out ceremony, officials were given a personal tour of the new USAMRIID building under construction. From left to right, Capt. Sumesh Sagar, aide-de-camp; Maj. Gen. James Gilman, USAMRMC commanding general; Jeff McMaster, USACE, USAMRIID Resident Office Field Team leader; Matthew Nawn, resident engineer, USACE, USAMRIID Resident Office; and Col. David Anderson, commander, USACE Baltimore District. Not pictured: Col. Stephen Wooldridge, commander, HFGPA.

Photos by Dave Rolls, USAMRMC



The new USAMRIID construction project features 10,000 tons of structural steel and 1,380 miles of wire. Commissioning will involve more than 600 different systems tests. The job site is under consideration by the Occupational Safety and Health Administration for its Voluntary Protection Program, which recognizes outstanding efforts by employers and employees to establish and maintain an exemplary occupational health and safety program.

These containment laboratories, which USAMRIID is known for, allow the institute to safely work with highly hazardous pathogens to carry out its research mission.

“I have to tell you that it takes USAMRIID a lot longer to develop a vaccine or a drug than it’s going to take you to build this facility,” USAMRIID former commander Col. John Skvorak told the construction team. “But we certainly couldn’t do our critical research without your commitment to delivering us this new building. Without it, we could

not bring our citizens—military and civilians alike—the next generation of medical products to protect us from biological threats.”

Maj. Gen. James Gilman, USAMRMC commanding general, noted, “USAMRIID is still first and foremost about protecting the Warfighter, but given the increase in civilian biodefense research, it’s clear that USAMRIID also plays a critical role in the status of our country’s emergency preparedness. In fact, the institute has emerged as a cornerstone of the U.S. biodefense strategy.”

USAMRIID is also a key component of the National Interagency Biodefense Campus at Fort Detrick, which includes the Department of the Navy, the Department of Homeland Security, the Department of Health and Human Services, the U.S. Department of Agriculture, and the Centers for Disease Control and Prevention.

“We believe the close proximity and sharing of resources among these agencies will facilitate collaborative research on biodefense,” Gilman said.



Calling the partnership between Manhattan and Torcon, HFPA, the Corps of Engineers, and USAMRIID a great example of teamwork, the general added, “I have high hopes that the spirit of cooperation you’ve established will continue long after the construction is complete.”

*Caree Vander Linden
USAMRIID Public Affairs*

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USAMRIID Welcomes New Leadership with Change of Command Ceremony

Fort Detrick said farewell to one outstanding officer and welcomed another as Col. Bernard L. DeKoning assumed command of the U.S. Army Medical Research Institute of Infectious Diseases Sept. 27. He replaces Col. John P. Skvorak who retires from the U.S. Army after more than 25 years of active duty service.

A board-certified family physician who received his Doctor of Medicine degree from Rush Medical College in Chicago, Ill., DeKoning most recently served as Director of Clinical & Healthcare Business Operations (J3B) Joint Task Force, National Capital Region-Medical, in Bethesda, Md.

“Never in my wildest dreams did I think I’d command such an internationally recognized organization,” said DeKoning. “I’m excited about USAMRIID’s future.”

DeKoning has held a variety of military positions overseas from his first assignment as commander of the 6th General Dispensary in Brunssum, The Netherlands, to leading the 30th Medical Command in Heidelberg, Germany. His numerous stateside posts have included chief of Family Practice Service at Eisenhower Army Medical Center, Fort Gordon, Ga.; combat developer, Army Medical Department Center and School, Fort Sam Houston, Texas; command surgeon, U.S. Army Training and Doctrine Command, Ft. Monroe, Va.; and assistant surgeon general for Force Projection at the Pentagon.

Before directing Clinical & Healthcare Business Operations for the Joint Task Force, the colonel served as com-



Col. Bernard L. DeKoning addresses attendees as he assumes command of USAMRIID Sept. 27. Photo by Caree Vander Linden

mand surgeon for the Multi-National Security Transition Command-Iraq and as senior medical advisor to the Iraq Ministry of Defense and Ministry of Interior.

During the change of command ceremony, Maj. Gen. James K. Gilman, commanding general of the U.S. Army Medical Research and Materiel Command, praised DeKoning’s experience, calling him an example of the quality leadership within the Army Medical Department.

The general also thanked Skvorak, who had served as commander since June 2008, for steering the institute through its “toughest times”—a reference to the Federal Bureau of Investigation’s naming of USAMRIID scientist Dr. Bruce Ivins as its sole suspect in the anthrax mail attacks in July 2008. Ivins committed suicide before he was indicted, and USAMRIID was subsequently thrust into the national spotlight.

Under Skvorak’s leadership, USAMRIID passed one inspection after

another, setting a new standard for the Army’s biological surety program, Gilman noted. He also praised Skvorak for his commitment to establishing and supporting the Containment Laboratory Community Advisory Committee, a local body formed at the recommendation of the National Academy of Sciences to improve communication between containment laboratories and local citizens.

“Over and over, he faced his toughest critics with factual information,” Gilman said. “Three years and three months is a long time to command, by any stretch. It was an extremely long time under these circumstances ... Col. Skvorak has simply been the best.”

He also commended USAMRIID’s employees for their dedication, saying “their commitment to protect Americans ... has never strayed” despite the controversy.

Caree Vander Linden
USAMRIID Public Affairs



Four USARIEM Soldiers have been selected for the commissioning program. Left to right, Sgt. Jessica Morley, Staff Sgt. Mark Kryskow, Sgt. Reeshemah Ward, and Staff Sgt. Rodrick Polk.

Four USARIEM Enlisted Go for Commission

Four Soldiers from the U.S. Army Research Institute of Environmental Medicine are about to embark on a coveted journey as each has been selected for a commissioning program. Staff Sgt. Rodrick Polk and Staff Sgt. Mark Kryskow will attend Officer Candidate School in 2012. Sgt. Jessica Morley will be directly commissioned as an environmental science officer. Sgt. Reeshemah Ward was accepted into the Army Enlisted Commissioning Program for nursing and will attend nursing school in the fall of 2012.

Polk, deployed twice to Iraq, has served six years in the Army. Working as a medical laboratory specialist, or “68K,” in theater, he was mentored by several prior-enlisted officers. This sparked his interest in the OCS program; however, he first had to complete his bachelor’s degree. Upon graduation, Polk pursued his goal of entering OCS, and with the support of the chain of command, he was accepted to the program, which will begin May 2012. He hopes to advance in the Medical Service Corps.

Kryskow, a 68K P9, viewed his first assignment to USARIEM as a perfect fit. However, his personal goal was to become a physician and dedicate his life to the medical support of Soldiers.

After his normal duty hours, he completed additional college courses and a full-time medical college admission test preparation course. Kryskow’s hard work paid off when he was accepted to a Doctor of Osteopathic Medicine program. He was also selected for OCS through the National Guard. He will receive a direct commission following graduation from medical school.

After four years at USARIEM, Morley, also a 68K P9, longed for greater challenges. She pursued a direct commission as an environmental science officer due to her extensive educational background in environmental science and toxicology. Morley credits her chain of command, in particular, detachment sergeant, Sgt. 1st Class

Raymond Persaud, and detachment commander, Capt. John Lavoie, for encouraging her to pursue her goals.

Ward, a 68K, has served in the Army for five years and always wanted to be a nurse. It was arduous to wade through the process and find a school that would fill the AECP’s strict requirements. She will attend Washburn University in Kansas and serve an additional four years on active duty.

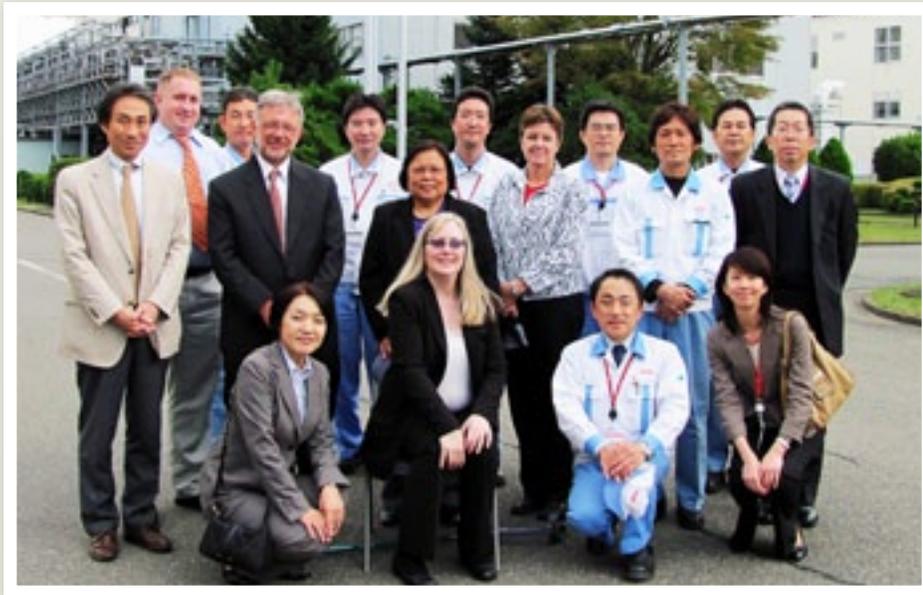
USARIEM is the home of 35 enlisted service members of which 75 percent hold at a minimum an associate’s degree while 25 percent possess a master’s degree or higher.

Sgt. Martha Alinovi



The U.S. Army Medical Research Institute of Infectious Diseases held its annual Noncommissioned Officer and Soldier of the Year competition Nov. 7–8, 2011. The two-day event took place at several locations and culminated with the awards ceremony Nov. 10. Col. Bernard DeKoning, commander of USAMRIID, recognized the winners with Army Commendation Medals. Staff Sgt. Craig Wayman received the award for USAMRIID NCO of the Year, and Spc. Elyse Troxell was voted USAMRIID Soldier of the Year. Both will compete at the U.S. Army Medical Research and Materiel Command’s Best Warrior Competition in 2012.

USAMMDA Site Assessment Team Travels to Japan to Assess Arbekacin Manufacturing Facilities



USAMMDA site assessment team during the Kitakami facility tour.

Photo courtesy of Vicky Price

The U.S. Army Medical Materiel Development Activity site assessment team for arbekacin visited three Meiji Seika Pharma facilities in Japan Oct. 15–21. The purpose of the visit was to determine acceptability of Meiji’s antibiotic arbekacin manufacturing capabilities supporting the protocol “Treatment Protocol for the Use of Arbekacin in Adult Patients with Infections Caused by Multi-Drug Resistant Bacteria.”

During the site assessment, the team visited three facilities: the Meiji headquarters in Tokyo, the initial drug product facility in Kitakami, and the final drug product facility in Odawara.

“The assessment of these facilities is vital to due diligence for the

U.S. Army to ensure proper quality of this antibiotic when used in the treatment of the wounded Warriors,” said Christa Madock, site assessment team leader and product manager for the Force Health Protection Division at USAMMDA.

The goal of the visit was to confirm that the facilities are compliant with good manufacturing practices that meet U.S. federal regulatory requirements.

“This visit to Meiji was a significant step in support of the tremendous effort set forth by Meiji to make this product available to our wounded Warriors,” said Jane Cook, regulatory affairs scientist for the Division of Regulated Activities and Compliance at USAMMDA. “It was important

because we will be submitting an Investigational New Drug application to the FDA for use of arbekacin in the Infectious Disease Unit of Walter Reed National Military Medical Center in Bethesda, Md. [formerly the Walter Reed Army Medical Center].”

In Tokyo, team members visited Meiji headquarters where they met with Meiji senior leadership to outline the purpose of the visit, introduce the team members, brief updates to legal documents, and define drug master file responsibilities.

“As a partner in the development of the arbekacin drug, Meiji is responsible for maintenance of and updates to the arbekacin drug master file submitted by them to the U.S. FDA in October 2011,” said Cook.

The team then traveled by Bullet Train to Kitakami, a city about 300 miles north of Tokyo, to tour the manufacturing facility where raw materials are made into the active antibiotic ingredient. This facility produces nine antibiotic active pharmaceutical ingredients, including arbekacin. Multiple lots of the arbekacin sulfate active pharmaceutical ingredient are produced each year based on demand with an average production of four lots.

“Procedures are in place for the qualification of raw materials and supplies,” said Madock. “Upon completion of product manufacturing, samples are removed and tested according to predetermined specifications.”

Hopping on another Bullet Train, the team then traveled to Odawara, a city



about 30 miles south of Tokyo, where team members reviewed the process of transforming the active ingredient into the final drug product, which is then prepared for shipment. This facility produces three antibiotics, including arbekacin.

According to Madock, two of the team members toured the facility while the remaining team members reviewed selected standard operating procedures and documentation pertinent to the safe and effective handling of arbekacin.

“Our successful site assessment trip to Japan was punctuated by the hospitality of our Meiji partners, the beautiful and clean country, wonderful weather, and excellent food with chopsticks,” said Madock.

USAMMDA serves as the sponsor for this protocol and the submission of arbekacin as an IND to the FDA.

So why is arbekacin so important to our military health and operations?

Since the U.S. military’s occupation of Afghanistan in 2001, in-patients at the WRNMMC have been prone to infections caused by bacteria that are becoming resistant to treatment.

“Given the increasing prevalence of wound infections caused by multidrug-resistant organisms as well as the few new antibiotic classes in Phase 3 clinical studies, the treatment of patients with infections caused by multidrug-resistant organisms poses an increasing challenge,” said Madock. “This is especially true in the war-wounded population.”

Arbekacin is a semi-synthetic aminoglycoside antibiotic manufactured by Meiji Seika Pharma Co., Ltd., in Japan. Arbekacin is licensed in Japan for the treatment of pneumonia and

septicemia caused by methicillin-resistant *Staphylococcus aureus*, more commonly known as MRSA. Arbekacin was originally synthesized from dibekacin in 1972. In 1990, it was registered and marketed in Japan.

According to Madock, arbekacin also has a broad spectrum of activity against gram-negative bacteria including multidrug-resistant organisms isolated from WRNMMC inpatients.

The site assessment team included the following USAMMDA team members: Christa Madock, Jane Cook, Maria “Vicky” Price from the Clinical Services Support Division, Robert Rice from CSSD, and Jon Witt from the Office of Research and Technology Applications.

*Carey Phillips
USAMMDA Public Affairs*

In Odawara, Vicky Price and Bob Rice prepare to tour the facility. The group members received special training before being given lab coats, hats, and special shoes for cleanliness to tour the sterile sites.

Photos courtesy of Christa Madock



As is the custom of Meiji, the U.S. flag is flown alongside the Japan and Meiji flags as a sign of respect and welcome to the U.S. visitors.

USAMRMC Showcases Tunisian Collaboration to Develop a New Treatment for Cutaneous Leishmaniasis

Leaders from the U.S. Army Medical Research and Materiel Command product development team for the paromomycin/gentamicin topical cream treatment for cutaneous leishmaniasis were recently invited, along with their Tunisian partner from the Institut Pasteur of Tunis, to chair a discussion session at the third workshop in the American Association for the Advancement of Science International Engagement Series, held in Tunis, Tunisia Oct. 31 and Nov. 1.

Maj. Mara Kreishman-Deitrick, product manager at the U.S. Army Medical Materiel Development Activity; Col. Max Grogl, director of the Division of Experimental Therapeutics at the Walter Reed Army Institute of Research; and Professor Afif Ben Salah, head of the Epidemiology Department at the Institut Pasteur of Tunis, led a session at the workshop that was part of a series intended to foster a better understanding of critical issues associated with international collaboration in the biomedical sciences across the Middle East and North Africa.

“Recognition of the success of our mutual efforts to develop a new treatment

for CL by an organization as prestigious as AAAS is very exciting for us and highlights the importance of the effort in this region of the world,” said Kreishman-Deitrick. “This effort has really showcased the synergy between our two teams and the power of collaborating to achieve a common goal.”

USAMRMC’s 10-year collaboration with the Tunisian Ministry of Health, the Institut Pasteur of Tunis, and the Institut Pasteur of Paris was selected by AAAS as a success story in a region where such collaborations are often difficult to initiate and sustain.

“This collaboration was sustainable because it was conceived to meet the real needs of the communities involved in the trials,” said Ben Salah.

The collaborative effort has led to the completion of three clinical trials evaluating the topical cream for CL, as well as clinical trials for the Army’s leishmaniasis diagnostic products, culminating in the completion of a 375-subject pivotal trial of the topical cream this summer.

The U.S.–Tunisian team certainly encountered its share of challenges over

the years, many of which are inherent to conducting overseas clinical trials by U.S. sponsors, but some of which have been unique to Tunisia.

“The Tunisian team, under the leadership of Professor Ben Salah and with the support from the Director of the Institut Pasteur of Tunis, Professor Hechmi Louzir, has done a superb job in finishing a pivotal study with nearly 100 percent follow-up and zero major deviations despite the hard reality during the start of the recent Tunisian cultural and political revolution,” said Grogl.

The collaborative effort has fostered the development of a Tunisian clinical trials team that has set a new standard in the region and is ready to test future generations of products to combat the problems that continue to impact global health. Data collected on the topical cream will be critical as USAMRMC seeks approval of the product from the U.S. Food and Drug Administration. If approved, a new topical treatment for CL would fill an unmet medical need in the U.S. and throughout endemic areas of the world.

Submitted by USAMMDA

Delegates to Workshop Three of the International Engagement Series hosted by the American Association for the Advancement of Science in Tunisia. Delegates represented 11 countries of the Broader Middle East and North Africa as well as the U.K., France, Brazil, and the U.S.

Photo courtesy of Gwenaële Coat, senior program associate, AAAS Center for Science, Technology, and Security Policy





USAISR Presented CoTCCC Award for Excellence

The U.S. Army Institute of Surgical Research was awarded the Committee on Tactical Combat Casualty Care Award for Excellence at the CoTCCC's 10th Anniversary Dinner Nov. 15 in Washington, DC. Guests at the dinner included Assistant Secretary of Defense for Health Affairs, Dr. Jonathan Woodson; Deputy Assistant Secretaries of Defense for Health Affairs, Dr. Peach Taylor and Mr. Al Middleton; former Army Surgeon General Lt. Gen. Eric Schoomaker and his wife Audrey; Air Force Deputy Surgeon General, Maj. Gen. Tom Travis; Joint Staff Surgeon, Maj. Gen. Doug Robb; Defense Health Board President, Dr. Nancy Dickey; former Chairman of the Joint Chiefs of Staff, retired Gen. Richard Myers; Association of Military Surgeons of the United States head, retired Maj. Gen. George Anderson; former Commander of the Naval Special Warfare Command, retired Rear Adm. Tom Richards; and the Chairman of the American College of Surgeons Committee on Trauma, Dr. Mike Rotondo.

The USAISR award is for the institute's support and contributions to combat casualty care for the past decade. "This award is for the entire ISR staff: past and present," said Col. (Dr.) Lorne H. Blackburne, commander, USAISR. "Everyone at the ISR has made significant contributions, and this award is just a small token of our commitment and dedication to optimizing combat casualty care."

The CoTCCC was established in 2001 to ensure that lessons learned from the modern day battlefield were analyzed and that updated best practice guidelines for battlefield trauma care are incorporated into the TCCC

guidelines as needed. TCCC is now used by all U.S. military services and by many coalition partner nations; it has been identified as one of the major reasons that U.S. military operations in Iraq and Afghanistan have experienced the highest casualty survival rates in history. Members of the CoTCCC represent all services and the civilian sector, including Navy corpsmen, Army medics, Air Force pararescuemen, trauma surgeons, emergency medicine and critical care physicians, medical researchers, and medical educators. The CoTCCC is a working group of the Trauma and Injury Subcommittee of the Defense Health Board and meets quarterly to discuss topics in casualty care, such as techniques, procedures, equipment, and drugs/agents.

The chairman of the CoTCCC, retired Navy Capt. and former U.S. Special Operations Command, Command Surgeon Dr. Frank Butler, said that the CoTCCC has had a number of strategic alliances over the years but that the USAISR stands out from the group.

"It's almost easier to list the things in TCCC that ISR has not been involved with," said Butler. "The importance of their contribution to TCCC can't be overstated."

According to Butler, "Without ISR, we wouldn't have the 'Causes of Death' analysis in the papers by Dr. John Holcomb and Dr. Joe Kelly that have been so helpful in improving trauma care. Without ISR and the 2005 tourniquet report by Holcomb, Walters, and Dom Greydanus, U.S. medics might still be making tourniquets out of belts and screwdrivers like they did in Mogadishu and at the

start of the current conflicts. Without ISR and the TCCC Transition Initiative carried out by Holcomb and Greydanus, we would not have been able to develop expedited ways to field and train TCCC equipment in Special Operations Forces units deploying in support of combat operations. Without ISR and Dr. John Kragh's landmark tourniquet studies, we would still be arguing about whether or not tourniquets really save lives. Without ISR and the work done by Dr. Bijan Kheirabadi and his colleagues, we might not have lifesaving hemostatic agents on the battlefield. Without ISR, we probably would not have a Joint Trauma System. Without ISR, we would not have the remarkable work that Lt. Col. Bob Mabry has done on tactical evacuation care. Without ISR and the MATTERS study performed by Col. Todd Rasmussen and his colleagues, we might not have been able to add tranexamic acid to our medical provider's tool kit as a way to stop life-threatening torso hemorrhage in combat casualties. Finally, without Holcomb and Blackburne and their strong support for the CoTCCC beginning in the period that it was transitioning from Navy Medicine to the Defense Health Board and continuing through today, we would never have been able to accomplish the smooth and successful transition that has occurred."

"Everything that the ISR does is for our combat wounded," said Blackburne. "We should all be proud of this award and our commitment in caring for the world's finest warriors."

Steven Galvan
USAISR Public Affairs

The “Business” Side of Saving Lives

In an age of smart phones and high-tech gadgets galore, it may be surprising to hear that the next “big thing” coming out of the electronics arena is being spearheaded by the U.S. Army Medical Research and Materiel Command at Fort Detrick, Md. Since 2009, USAMRMC has been directing several efforts to design, develop, or refine handheld telemedicine devices that could help to save lives in theater.

And the culmination of this effort is drawing near for at least one of the candidate projects.

“The TEMPUS-Pro is an advanced compact telemedicine system intended to support combat casualties in forward areas near point of injury on the battlefield,” says Dr. Gary Gilbert, chief of the Knowledge Engineering group for the USAMRMC’s Telemedicine and Advanced Technology Research Center.

“The unit provides a capability for ‘point-of-injury data capture,’ which is a critical gap we are trying to fill.”

As a key resource for medics in the field, the TEMPUS-Pro combines three devices into one handheld module, allowing for (1) immediate communication with other units, (2) pre-hospital monitoring of patient vital signs and telemetry data, and (3) tele-mentoring instruction from more experienced medical providers to less experienced combat medics in theater.

The unit also provides real-time audio and video capability, which is extremely useful in transmitting images of the wounded patient immediately to physicians at distant locations, and a transcription feature for hands-free voice data input is on the horizon.

No, it doesn’t fire lasers, and you can’t use it to beam yourself to another planet—it’s simply meant to save lives.

But isn’t that enough?

“An important aspect of the TEMPUS-Pro is that it can maintain patient data [i.e., vital statistics] from near POI through transport all the way into the hospital room,” adds Gilbert. “The patient’s medical data can stay with him wherever he goes—which is very significant.”

Along with Carl Manemeit, project manager for TATRC’s Joint Combat Casualty Care division, Gilbert has headed up the TATRC branch of the large team tasked with making sure the TEMPUS-Pro was approved by the U.S. Food and Drug Administration as a medical device ready for use in the field.

Born from a British commercial product originally developed for use on aircraft, the TEMPUS-Pro is the result of a collaboration involving eight Department of Defense organizations: TATRC; Medical Communications for Combat Casualty Care, or MC4; Defense Health Information Management Systems; U.S. Army Aeromedical Research Laboratory; U.S. Army Institute of Surgical Research; U.S. Army Medical Materiel Agency; Air Force Medical Evaluation Support Activity; and U.S. Joint Forces Command Surgeon’s Office.

The Command has implemented a new approach to its integrated product team model—with one lead product manager being supported by other PMs from different critical areas—and this new paradigm is showing much success.

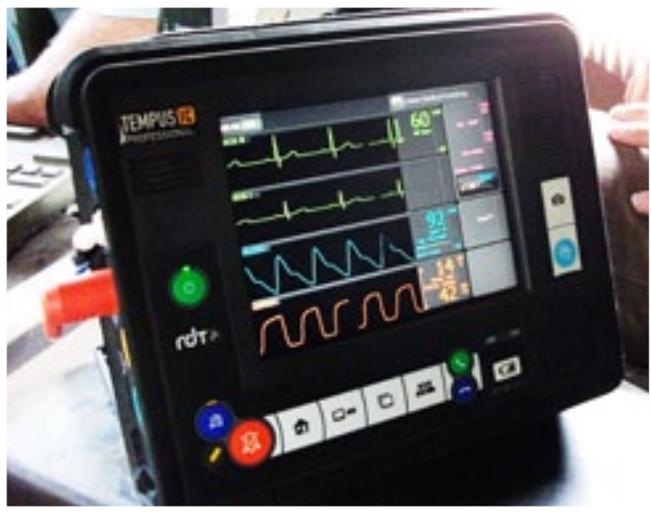
In fact, it’s award winning.

Out of 25 Joint Capability Technology Demonstrations reviewed in 2011, the “Joint Medical Distance Support & Evacuation” was recognized as “Best JCTD of the Year,” and the TEMPUS-Pro system was a key component technology.

Designed to be lightweight, mobile, and rugged, the TEMPUS-Pro is intended to be used with tactical communication radio networks that support Internet protocol-based transmission so that signals can be sent out digitally over both classified and nonclassified systems. This aspect of immediate digital transfer is what sets the TEMPUS-Pro apart from its predecessors. With this new unit, personnel can transfer data from one device to another—from the ground to the helicopter to the hospital—keeping a patient’s medical information with him during transport out of the field; it can also be transmitted via radio or tactical Internet in advance of the patient to the next stop in the medical evacuation chain.

Using either the standard military first responder medical data card called the Tactical Combat Casualty Care card, or a wireless “smart dog tag” that could be carried or worn by the warfighter, a patient’s vital records can be exchanged wirelessly between various systems and eventually placed into a permanent medical record. Using this secure digital system, data are neither lost nor compromised.

Because of this feature, the TEMPUS-Pro is actually prompting an upgrade to the current limited capability of the military to transmit data digitally between air and ground units.



The TEMPUS-Pro device is tested within a tactical vehicle to monitor and transmit real-time patient telemetry data over tactical radio during the Army's C4ISR On-the-Move communications integration exercises conducted at Fort Dix, N.J.

“The military’s helicopters currently do not all have compatible high-tech radio systems necessary to transmit this information digitally from helicopter to ground,” Gilbert says. “One of our biggest challenges is to get the TEMPUS-Pro integrated properly to be used in the MEDEVAC helicopters.”

As the USAMRMC team works to overcome this obstacle, its focus remains on the welfare of the wounded in an effort to save as many lives as possible.

“We want to be able to get pre-hospital data to the hospital before the patient gets there,” says Gilbert.

While storage of patient data is important, the device’s capabilities for transmitting both still photos and live video of injuries is essential for medics in the field.

Using the TEMPUS-Pro, medics can quickly assess severe injuries and send real-time images, as well as live telemetry data and the TCCC card to experienced surgeons off-site for

instruction on how to proceed. Viewing the situation, the physician-mentor can immediately talk with medics over the built-in Voice-over-IP capability and guide them through life-saving techniques instead of delaying effective treatment until the patient arrives at the hospital. The physician can even annotate an image with instructions and send it back to the medic.

And that’s the reason the TEMPUS-Pro is creating such a buzz—it doesn’t just collect data.

With ultrasound and laryngoscope capabilities in the works, the effectiveness of the field medic will increase exponentially. Having the ability to capture and transmit internal images will afford a more complete assessment of patient trauma, leading to more accurate diagnoses and treatment.

Gilbert adds, “With this device, the U.S. military could realize much more of the hidden potential of its very capable medics because it will make them better at what they’re doing for the injured out in the field.”

While the USAMRMC team researches some operational and logistics issues regarding the device, it anticipates the opportunity for the TEMPUS-Pro’s widespread use in theater. Currently, the unit is awaiting approval under the DoD Information Assurance Certification and Accreditation Process. However, about 25 units have been distributed to various Special Opera-

tions commands for trial use, and the results have been positive.

Regarding cost, Gilbert says that the estimated price per unit is “in the ballpark” of the Propaq® medical device currently used by the U.S. military, although the TEMPUS-Pro has additional capabilities that are potentially more useful to the field medic.

As for instructions on how to use the unit, the built-in tutorials are “well designed, easy to understand, and effective,” says Gilbert.

“The medics from MRMC, the Special Operations Forces, the Air Combat Command, and the 1/25th Stryker Brigade Combat Team that have trained on this device said that they like the unit and believe it would help tremendously in the field.”

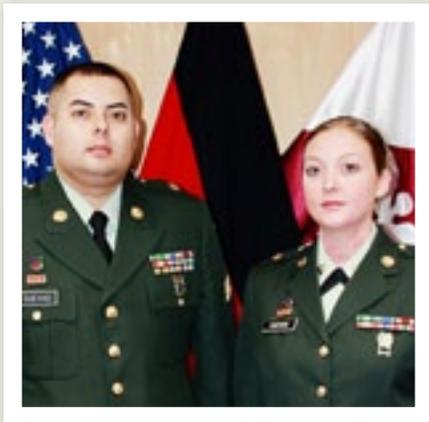
Most recently, the TEMPUS-Pro has been selected as a candidate for the U.S. Army’s Network Integration Evaluation exercise to be held at Fort Bliss, Texas beginning April 2012. The device will be field tested for two months to determine its operational effectiveness within Infantry Brigade Combat Teams. The TEMPUS-Pro has also been chosen for testing in a Marine Corps Warfighting Lab Limited Objective Experiment scheduled for August 2012.

The USAMRMC team, including Gilbert, believes these two rigorous tests should help to validate the applicability and usefulness of the TEMPUS-Pro. The success of the device throughout these exercises should confirm its potential for treating wounded U.S. warfighters on the battlefield.

For the USAMRMC, it’s all about saving lives.

Jeff Soares
USAMRMC Public Affairs

USAMMCE Husband and Wife Team Win NCO/Soldier of the Quarter Board



Sgt. Ramon Cuevas and Spc. Justina Cuevas are the first husband and wife team at the U.S. Army Medical Materiel Center, Europe to win Noncommissioned Officer and Soldier of the Quarter at the same time when they went before the board Dec. 6.

The Cuevas' came to USAMMCE from Brooke Army Medical Center in May 2011 and August 2011, respectively, where they worked at the Optical Fabrication Lab. They are

both 68H optical fabrication specialists and now work at the USAMMCE Optical Lab.

They both see winning this board as a stepping stone in their careers. Ramon Cuevas said he wants to make it all the way to the Medical Command Board.

USAMMCE congratulates this "dynamic duo" and wishes them continued success.

USARIEM Brightest at NEACSM Conference



The U.S. Army Research Institute of Environmental Medicine was well represented and continued to have a large presence at the American College of Sports Medicine conference Nov. 3–4, 2011.

The ACSM is the largest association in the world for sports medicine and

exercise science professionals. As one of 12 regional chapters, the New England ACSM represents Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

USARIEM is regarded as one of the superior research institutions affiliated with the organization, and USARIEM scientists are some of the best and most respected in the field of exercise, military and environmental physiology, sports nutrition, and performance.

There were 700 participants, including students, medical doctors, research scientists, and exercise professionals, who attended NEACSM's annual fall conference in Providence, R.I. The conference was held at the Rhode Island Convention Center, and this year's main theme focused on the newest technologies for data collection in the field from measuring sweat

rate to analyzing whether an athlete may be overtraining.

The annual regional meeting offered lectures, research presentations, and round-table discussions led by students and professionals.

Note: The author, from USARIEM's Thermal and Mountain Medicine Division, was given the opportunity to present her research while attending the conference with several other USARIEM Soldiers, interns, and principal investigators, some of whom were also invited to present. As a representative of USARIEM, it was an honor for the author to attend the conference and to witness the respect USARIEM receives from the exercise science community.

*Spc. Marissa Spitz
USARIEM Thermal and
Mountain Medicine Division*



Local Support Leads to Certification of Helicopter Medical Equipment

Supported by Fort Rucker's 110th Aviation Brigade's Air Ambulance Detachment (FlatIron), the U.S. Army Aeromedical Research Laboratory's Airworthiness Certification and Evaluation Branch recently accomplished the inaugural test cycle for certification of patient movement medical items.

With the detachment's assistance, 12 medical devices are airworthiness certified for use on board the Army's newest medical evacuation platform, the UH-72A Lakota helicopter.

Personnel from FlatIron, PM-UH-72 Project Office, Army Engineering Directorate, USAARL Flight Systems Branch, and USAARL ACE Branch collaborated to coordinate the use of FlatIron's UH-72A helicopter, developing and approving the test plan, conducting ground and in-flight environment medical electromagnetic interference testing, and compiling the test report data all of which will lead to improving medical equipment aboard the UH-72 fleet worldwide.

This synergistic approach to mission accomplishment saves Army resources, maximizes personnel assets, inspires interorganizational cooperation, and ultimately leads to saving the lives of our Warfighters on the battlefield.

*John Ramiccio
USAARL chief
Flight Systems Branch*

Renowned USAMRICD Scientist Retires After 41 Years of Service

“An internationally known scientist,” “a supportive mentor,” and “a dedicated friend” are just some of the terms used by coworkers and colleagues to describe Dr. David Lenz, a recent retiree from the U.S. Army Medical Research Institute of Chemical Defense with 41 years of federal service.

“What a wonderful career I have had as a result of working here,” said Lenz in a farewell e-mail to coworkers.

“This is an institution filled with people with small egos and people with big compassion and concern for each other, truly wanting to work together for the success of the mission,” continued Lenz. “It has been my good fortune to benefit from that atmosphere. I have learned much from everyone I worked with and that has enriched my scientific life as well as my personal life.”

Lenz, a research chemist, began working for the U.S. Army Biomedical Laboratory—USAMRICD’s former designation—in November 1969. In the succeeding years, he left an indelible mark on the medical chemical defense research program through his innovative thinking, diplomacy, leadership, and management capabilities. In recognition of his achievements and dedication to the nation, upon his retirement Lenz received the Department of the Army Superior Civilian Service Award and the Department of the Army Decoration for Exceptional Civilian Service; the latter is the highest honorary award that can be given to civilians by, or on behalf of, the Secretary of the Army.

“Dr. Lenz’s contributions are immeasurable,” remarked Maj. Lee Lefkowitz, who had been Lenz’s division chief and now serves as USAMRICD’s executive officer. “He is one of the most educated, intelligent, outstanding scientists I know, and he is meticulous in applying scientific rigor to the research process.”

Arriving at the laboratory with a background in the enzyme acetylcholinesterase, a primary target of chemical warfare nerve agents, Lenz eventually expanded his knowledge on inducing antibodies specific for nerve agents. According to Dr. John Petrali of USAMRICD, Lenz’s “positiveness” that antibodies to these chemicals could be developed inspired their team to pursue the research, and in the early 1980s, Lenz’s collaborative

efforts with Dr. K. W. Hunter, Jr. of the Uniformed Services University of the Health Sciences led to the development of the first monoclonal antibodies to the nerve agent soman.

From the early 1990s onward, Lenz spent much of his career working on an innovative prophylactic approach to protection against the lethality of chemical warfare nerve agents: the use of enzymes that occur naturally in the human body to scavenge the agent. These bioscavengers attach to the nerve agents, preventing their toxicity and providing extended protection without causing side effects, behavioral effects, or the need for extensive therapy.

The big picture was always Lenz’s focus when looking at a problem and



Dr. David Lenz was always a supportive mentor to students in his laboratory. For many years at USAMRICD, he managed the summer high school student apprentice program and the Oak Ridge Institute of Science and Engineering internship program, which he introduced to USAMRICD.



In the 1990s, Dr. David Lenz (right) and Dr. Clarence Broomfield, who retired in 2001, were pioneers of USAMRICD's program to develop bioscavenger protection against poisoning by chemical warfare nerve agents.



Dr. David Lenz (right) discusses a molecular model of the bioscavenger candidate human paraoxonase 1 with a nerve agent docked in the active site with co-investigator Dr. Douglas Cerasoli and Col. Brian Lukey, who was the commander of USAMRICD in 2006 when Lenz's research team received the Center of Excellence grant from NIH.

how to solve it, explains institute researcher Donald Maxwell.

“Dave always said, ‘Don’t work on little things,’” recalled Maxwell, “work on the big problems and the little ones will come along.”

Maxwell also described Lenz as having “a knack for working with groups of people.” This knack and Lenz’s inherent diplomacy were evident in the development of the bioscavenger program.

Lenz, along with coworkers at USAMRICD and colleagues at other government and private organizations, began exploring the use of stoichiometric bioscavengers in which one molecule of enzyme binds one molecule of nerve agent. The result was the development of a first-generation bioscavenger called butyrylcholinesterase, a protein that was isolated from expired human blood. This was followed by a second-generation recombinant form expressed in the milk of transgenic goats. Both the plasma-derived and recombinant forms of human butyrylcholinesterase were selected for advanced development and transitioned to clinical trials. However, because the stoichiometric bioscavenger approach requires a large amount of enzyme to be effective, Lenz and his team began exploring the development of catalytic bioscavengers in which the enzyme can continuously destroy the nerve agent.

Initially, the research was funded predominantly by the Department of Defense. In 2006, the expertise of Lenz and his team at USAMRICD, as well as that of a team of collaborators at international and academic organizations, was recognized with

the award of a five-year Center of Excellence grant worth \$14.4 million from the National Institutes of Health CounterACT program. The grant to develop novel bioscavengers consisted of six projects and two core functions. The partner organizations include the Human Biomolecular Research Institute in San Diego; the Weizmann Institute in Israel; the Department of Plant, Cellular, and Molecular Biology and the Department of Chemistry at the Ohio State University; and the Biodesign Institute at Arizona State University.

Lenz's deft management skills and diplomacy in leading this broad, highly coordinated international effort resulted in several significant achievements: the development of a new class of surrogate nerve agent compounds, the first example of a catalytic scavenger capable of affording protection against a broad spectrum of nerve agents, and the unique expression of recombinant proteins in plants.

Lenz also served as a permanent member, as well as study director, of the pyridostigmine bromide integrated product team. The team's purpose was to organize research projects to support the submission of post-marketing studies to the U.S. Food and Drug Administration in conjunction with an Investigational New Drug application authorizing the use of PB as a pretreatment in conjunction with currently fielded therapy for poisoning by the nerve agent soman.

"This effort over the last three years," said Capt. Robert Brodnick, chief of USAMRICD's physiology and immunology branch, "represents the first Good Laboratory Practices study successfully completed at MRICD, and Dr. Lenz's invaluable experience and oversight of the study...resulted

in the retention of PB as a drug for military use."

From late 2001, in addition to his research efforts and oversight of the NIH grant, Lenz served as the contracting officer's technical representative on a contract with the Battelle Memorial Institute titled "A Medical Research and Evaluation Facility and Studies Supporting the Medical Chemical Defense Program." With a current value of approximately \$36 million, the contract includes 33 active research tasks addressing studies to provide needed data for an FDA IND submission for midazolam, the development of synthesis strategies for making current and new oximes, the evaluation of bioscavengers as a defense against inhalation exposure to nerve agents, the testing of new treatments for sulfur mustard burns, and late-stage development testing of a new oxime.

Throughout his career, Lenz mentored high school and college students and postdoctoral fellows. He has employed six National Research Council postdoctoral fellows in his laboratory, including Dr. Douglas Cerasoli, who transitioned to a civilian position and became Lenz's co-investigator on the NIH CounterACT Center of Excellence grant. Lenz was also USAMRICD's coordinator for the George Washington University summer Science and Engineering Apprentice Program from 1986 to 2001 during which he oversaw the placement of more than 130 high school students in the institute. Additionally, Lenz initiated USAMRICD's participation in the Oak Ridge Institute of Science and Engineering internship program and served as the program coordinator at the institute.

Lenz authored or coauthored more than 90 open literature publications,

150 presentations, and 6 patents. He is the recipient of a 1999 Army Research and Development Achievement Award for "Bioscavengers and Immobilized Enzymes for Protection against Chemical Warfare Agents," and he has also received several Army Science Conference awards, including the 1972 Paul A. Siple Award for best paper, first place for best paper in the Life Sciences category in 1998, and a bronze award for a paper in 2004.

Lenz's recognized expertise led to his serving in numerous capacities for various scientific committees, panels, and conferences. For five years Lenz served as the chair of the NATO Technical Group 004 (TG-004) on Prophylaxis and Therapy against Chemical Agents and was a member of the International Scientific Committee for the 10th International Cholinesterase Meeting in Croatia in 2009, serving also as an invited session chair. In 2010, Lenz was the organizing chair for USAMRICD's biennial science conference, the Medical Defense Bioscience Review.

Lenz is a member of numerous national scientific professional societies including the American Chemical Society, Sigma Xi (The Scientific Research Society), and the American Society of Biological Chemistry and Molecular Biology. Additionally, Lenz served on the editorial boards of the following journals: *Biochemical Pharmacology*, *Toxicology and Applied Pharmacology*, *Analytical Biochemistry*, *Biochimica et Biophysica Acta*, *Life Sciences*, *Journal of Agricultural and Food Chemistry*, *Archives of Toxicology*, and *Journal of Pharmacology and Experimental Therapeutics*.

At a luncheon in his honor, Lenz received many accolades including letters sent by foreign colleagues to



express their gratitude and offer well wishes. There were also letters and notes from President Barack Obama; Lt. Gen. Eric Schoomaker, former U.S. Army Surgeon General and commander of the U.S. Army Medical Command; Greg Stevens, U.S. Army Medical Department civilian corps chief; and past commanders. Schoomaker sent an Army Medical Department 30-year medallion to be presented to Lenz in recognition of his significant contributions to the overall success of the AMEDD. In addition, Lenz was appointed Distinguished Member of the Army Medical Department Regiment, acknowledging both his long career and his many contributions to the Army and the AMEDD regiment. Lenz's wife Betty was appointed an Honorary Member of the Regiment. Brig. Gen. Timothy Adams, commander of the Public Health Command and former USAMRICD commander, gave Lenz a Veterinary Corps coin and a PHC coin. Col. Peter Schultheiss, USAMRICD's commander, presented Lenz with one of his commander coins, and Stevens sent a civilian corps chief coin along with his letter.

*Cindy Kronman
USAMRICD Public Affairs*

Pidcoke Receives SCCM Specialty Award

The Society of Critical Care Medicine selected Dr. Heather Pidcoke, a research physiologist at the U.S. Army Institute of Surgical Research, as the recipient of the 2012 Endocrine Specialty Award. The SCCM Specialty Awards are based on top abstracts in their categories and recognize excellence in critical care research. Pidcoke earned the award for her abstract titled: "Glucose Tolerance and the Hypermetabolic Response to Insulin Treatment in a Rat Burn and Disuse Model."

According to Pidcoke, this USAISR research project addressed both clinical and basic science questions, and was a collaboration with co-authors Lisa Baer and Dr. Xiaowu Wu, Dr. Steve Wolf, and Dr. Charles Wade with contributions from research technicians D. Todd Silliman and Erica Hagerman.

"To me the award represents the importance of translational research and the level of scientific excellence that can be achieved by a team of dedicated people who take questions that come up while caring for the most severely injured and then try to solve those questions using a combination of basic science and clinical approaches," said Pidcoke. "The integration of basic science research, clinical research, and clinical practice is one of the things that makes the USAISR so productive. It creates a dynamic atmosphere in which problems can become innovative ideas, and those ideas can be translated into excellent care for the soldiers who give our country so much."

Since 2007, Pidcoke has been the recipient of four awards for her work at the institute. In 2007, she won second place in the National Clinical Investigation Award, Committee on Trauma Resident Paper Competition given by the American College of Surgeons and also won the Aust Society's Resident Paper Competition Clinical Research Award given by the Department of Surgery, University of Texas Health Science Center at San Antonio. In 2008, she won the Guarino Award for Excellence in Master of Science Studies given by the Graduate School of Biomedical Sciences at the University of Texas Health Science Center at San Antonio, and a travel award to the 31st Annual Conference on Shock in Cologne, Germany.

"I think I am proudest of the Circle of Excellence in Research Award from the American Association of Critical Care Nurses, an award won not by me but by Lt. Col. Elizabeth Mann," she said. "This award is given to a multidisciplinary team that has made significant contributions to the care of critically ill patients and was given to our group at the USAISR for a project Elizabeth and I worked on that, again, involved melding basic science and clinical research."

Pidcoke will be formally presented the award next month during the Society's Poster Award Presentation in Houston. "I think the award is also a testament to the great mentorship I received from Dr. Wolf and Dr. Wade," said Pidcoke.

*Steven Galvan
USAISR Public Affairs*

Seeking Answers to the Vicious Cycle of Alcohol Abuse and PTSD

Research moves closer to more effective anti-addiction drugs.

What if the same medication being tested for sleep disorders could reduce the stress-related drinking of alcohol? Or what if a drug being used to treat Parkinson's disease could reduce the impulsive choices that contribute to alcohol abuse?

These are just two of the projects of the Ernest Gallo Clinic and Research Center affiliated with the University of California, San Francisco. The center studies the biological basis of alcohol and substance use disorders with many projects supported by the military and the National Institutes of Health.

One of the organization's funders is the U.S. Army Medical Research and Materiel Command's Telemedicine and Advanced Technology Research Center. TATRC recognized the importance of the work early on and provided seed money for basic research that is growing closer to exciting treatment possibilities.

Because of the Gallo Center's ongoing success, it has been federally funded to administer a new program to competitively select and manage a national network of translational research centers. This program, entitled the Institute for Molecular Neuroscience, will focus on accelerating the development of new medications and protocols for treating alcohol and substance abuse particularly in the context of psychological health conditions impacting military personnel and veterans.

Says Dr. Eugene Golanov, director of TATRC's neurotrauma research portfolio, "Because alcohol abuse and post-traumatic stress often reinforce each other in a vicious cycle, these efforts could have far-reaching military relevance."

As for the sleep disorder medication that may prove successful in treating stress-induced relapse to alcohol, the key lies in the body's orexin system, a group of brain chemicals and receptors involved in regulating sleep and energy expenditure.

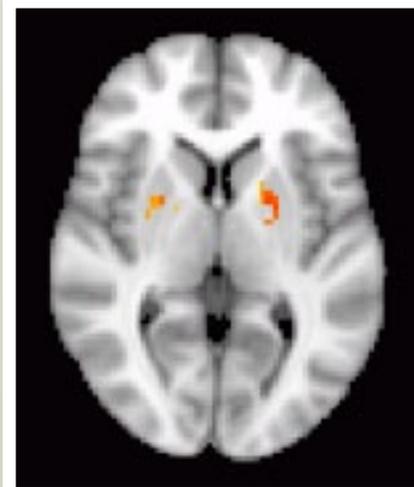
Dr. Selena Bartlett of the Gallo Center, who is conducting research in this area, explains that the orexin system seemed to be a promising treatment avenue to explore because it is also activated in response to stressors and fear. Her team has shed light on the role of the system in alcohol addiction and has shown in animal studies that an orexin receptor antagonist compound can reduce stress-induced relapse to alcohol seeking.

According to Bartlett, Merck has a similar compound in Phase 3 clinical trials for sleep disorders. If these trials are successful, her team would be able to perform proof-of-concept human studies and then clinical trials within the next few years to evaluate its effectiveness in treating stress-related alcohol relapse. She is especially interested in testing the compound in those diagnosed with post-traumatic stress disorder.

"TATRC funds research that is often not funded anywhere else," says Bartlett. "I can see the review committee is trying to move the results out of the lab and to patients as soon as possible. This gives me hope we will make a difference."

In addition to working with investigators at NIH, Bartlett has worked with Drs. Howard Fields and Andrew Kayser at the Gallo Center. Fields and Kayser are exploring another treatment direction, one that addresses impulsivity, a known risk factor for substance abuse.

Kayser explains that in the course of previous work on impulsivity, Fields and other collaborators discovered



Drs. Kayser, Mitchell, and Fields are studying the effect of tolcapone, a medication originally approved to treat Parkinson's disease, on impulsivity. When subjects were given tolcapone, a stronger connection was seen between the prefrontal cortex, which is involved in judgment and higher-level thinking, and the brain regions shown in red, which can be engaged in more habitual responses.

Image courtesy of Dr. Andrew Kayser



that more impulsive subjects tended to have a more active form of an enzyme that influences levels of the brain chemical dopamine. Tolcapone, which partly blocks that enzyme, is already approved by the U.S. Food and Drug Administration for the treatment of Parkinson's disease.

In Kayser and Fields' current human and animal studies on the effect of tolcapone on impulsivity, the team has shown that the drug seems to be reducing the number of impulsive choices.

According to Kayser, the next step is to expand the study to a larger group with measures more specifically related to alcohol use. If those results are positive, the team could then start a clinical trial. Kayser notes that a pharmacological solution for substance abuse could be particularly helpful in those with brain injury who may not be able to participate effectively in behavioral treatments.

Says Kayser, "We're excited that this may lead to portable treatments for the substance use disorders that can wreak havoc on so many lives and compromise military readiness. We greatly appreciate TATRC's willingness to support this work, especially given that the initial connection—between a risk factor for substance use disorders and a medication originally developed for Parkinson's disease—might not have been obvious at the outset."

Barb Ruppert
science and technology writer

Rising Above the Flood: The Mission of AFRIMS

Bangkok, Thailand, is partially flooded, and the city is reeling with anxiety.



AFRIMS staff work together to hold back the rising waters in Bangkok, Thailand.

Photo courtesy of AFRIMS

It hasn't happened in nearly half a century, but it isn't very surprising considering that the past year's weather pattern has given the world earthquakes, typhoons, tornadoes, hurricanes, extreme heat, frigid cold, and monsoon-like rain—yes, lots and lots of rain—in record numbers.

The Armed Forces Research Institute of Medical Sciences located in downtown Bangkok carries on, business as usual, despite the fact that practically all staff members face possible flooding in their homes.

As a Special Foreign Activity subordinate command of the Walter Reed Army Institute of Research and ultimately the U.S. Army Medical Research and Materiel Command, AFRIMS plays a critical role in helping to protect both Warfighters and civilians against potentially deadly diseases, including malaria, Japanese

encephalitis, dengue, bacterial diarrhea, and HIV.

“All research and our mission continues,” said Col. Robert Bowden, commander of AFRIMS. “We have been educating our staff to be very careful and set good examples for the community members by being alert and aware of waterborne diseases, such as leptospirosis, cholera, and hepatitis A, and to use precautions as much as possible.”

Although wading through water about 1.5 meters deep may seem like a trivial task to most, it becomes quite significant when the painstaking work of many scientists and military personnel is threatened with destruction.

AFRIMS maintains three large warehouse spaces in the Rangsit province, just north of Bangkok, and one of these spaces has 100 freezers that hold

nearly 1 million research samples. If the waters were to reach the freezers and shut down the cooling system, the efforts of hundreds of studies would simply be washed away by the flood.

But the commander and his team refuse to let this happen.

“Several teams of scientists and technicians from each department, along with their Royal Thai Army colleagues, collectively moved all of the research samples to ‘boxcar’-like freezers that have been stationed in front of the AFRIMS VetMed complex, which is about 20 kilometers [12.5 miles] from the original location in Rangsit,” said Bowden. “Elevated by 3 meters, these freezers are operational, on backup with generator power, and have dry ice stored on-site if one fails and immediate transfer is required to another unit.”

Bowden holds the members of his staff in very high regard with good reason.

“Maj. Paul Watkins, chief of logistics, Sgt. 1st Class Corey Powell, noncommissioned officer in charge of logistics and motor pool NCOIC, and Staff Sgt. Jeffery McDonald, NCOIC of medical maintenance were key in providing the leadership and establishing the resources for the AFRIMS rescue efforts,” said the commander. “Capt. Trent Peacock, a newly arrived Medical Service Corps microbiologist in the Department of Enteric Diseases, along with a team of medical maintenance technical specialists and volunteers from each department, are to be most credited with the brick walls, tarps, and ingenuity that led to the protection of the entire freezer farm from flood waters no more than a



half-inch deep inside the farm. Their proactive efforts allowed for no loss in property, no loss of electricity and, above all, no injuries.”

As perhaps an affront to the existing threat, the entire AFRIMS staff is pressing forward to ensure that neither current nor future work will be affected.

As Bowden said, “We continue to conduct our Phase 3 clinical trial in Northern Thailand, as well as all other IRB [Institutional Review Board] and IACUC [Institutional Animal Care and Use Committee] protocols. We continue to write proposals to MIDRP [Military Infectious Diseases Research Program], GEIS [Global Emerging Infections Surveillance], and all other agencies. And all staff continues to perform temporary duty and other functions to conduct ongoing or future protocols.”

“In conjunction with III Marine Expeditionary Force medical augmentation team, 5th Preventive Medicine Unit from the 8th U.S. Army, Korea and the Royal Thai Army, Navy, and Air Force, AFRIMS is supporting the flood recovery effort with subject matter expertise in dengue, malaria, insect (vector) control and assessment, diarrheal disease, respiratory illness, and veterinary services (human-animal disease interface). The III MEF Medical Team and AFRIMS met with the Royal Thai Army Medical Department Surgeon General and his staff, and together they have proposed a plan to join the Royal Thai Army military medical teams that attend patients affected by the flood currently residing at any one of six of the Royal Thai Army military evacuation shelters. This plan will include AFRIMS staff and III MEF medical forces as the mission requires. AFRIMS has suggested and

facilitated a meeting of the III MEF medical team and the Royal Thai Navy Surgeon General and Royal Thai Air Force Medical leadership to discuss needs and a plan-ahead strategy for infectious disease prevention and surveillance.”

All this seems rather impressive, but it doesn’t end here.

Bowden says that AFRIMS currently is poised in support of other likely disease outbreaks that may occur subsequent to the flood waters receding in the Bangkok region. There are also reports of diarrheal disease in Nonthaburi, an area northwest of Bangkok.

Nevertheless, the AFRIMS team is ready to help the surrounding Thai community with whatever is necessary primarily because of the “fantastic” bond between the two.

“We have a strong relationship with our Thai hosts and colleagues...[and] we stand ready with clinicians and laboratory support staff to help them,” said Bowden.

“We would not abandon them in search of ‘higher ground.’”

Celebrating its 50th anniversary, AFRIMS is the successful result of a collaboration involving the United States and Thailand governments to create a joint medical research laboratory in Thailand, initially formed to combat the spread of cholera throughout the country. Today, AFRIMS works to create vaccines, drugs, and diagnostics for tropical infectious diseases that affect millions of people each year. Without the efforts of this focused group of partnering individuals, the lives of many thousands around the world could be lost annually.

The partnership is so strong, in fact, it dictates how the AFRIMS team takes care of its host community.

“If it floods here [inside the campus], we’ll clean it up and make it shine. We’ll mitigate against mold or other issues that arise from long-term stagnant water collection. We’ll refurbish what may be damaged,” said Bowden. “We stand with our colleagues to assist.”

While the damage to the AFRIMS facility is minimal at this point, the commander notes that a few items are still needed in anticipation of the recovery effort that lies ahead. These include 15 portable pressure washers, 50 mattresses for affected staff who are currently staying at AFRIMS, and sheets, towels, and blankets for these displaced staff members.

Although the current outlook is positive, with electricity flowing, hospitals functioning, and no widespread disease, the AFRIMS team still must anticipate a worst-case scenario, and all plans are in place to mitigate extensive damage and illness in this unlikely event. Despite this, it’s probably safe to say that Bowden and his AFRIMS colleagues won’t let a little water get the best of them. Or even a lot of water.

It hasn’t in 50 years.

Jeffrey Soares
USAMRMC Public Affairs

MEDEVAC PMO Helps the Army Recapitalize Military Aircraft for Current Missions

It happens to every vehicle owner at some point. That “new car” feel wears off and suddenly you’re being passed on the interstate by a newer model. While most of us would relish the opportunity to cast our trusty old rides to the side and purchase a shiny new car, that isn’t a realistic or cost-effective scenario. The Army is no different.

Innovative models of military aircraft are being developed and deployed on a regular basis; the newest utility helicopter is the UH-72A Lakota, and Sikorsky Aircraft Corporation is still filling orders for the newer HH-60M Black Hawk. While there are a few of these newer helicopters being produced, the bulk of the Army’s missions are still being carried out by a dependable fleet of older models. Part of this fleet is the UH-60 Black Hawks that have served the Army over the past few decades. As a cost-effective measure, they are currently being upgraded and modernized through the Recapitalization Program. These upgraded helicopters are referred to as “Recap Black Hawks,” and they support the bulk of military missions as newer models continue to be developed and introduced to the field.

Just as the Recap Black Hawks are being modernized to match the capabilities of the HH-60M, the Medical Evacuation Recap Black Hawks are also being modernized to match the capabilities of the HH-60M MEDEVAC. This is where the U.S. Army Medical Research and Materiel Command’s responsibility comes in. In 2010, the Office of the Surgeon General directed USAMRMC to

form the Project Management Office of the Medical Evacuation Mission Equipment Package to modernize the Army’s existing fleet of UH-60A/L Black Hawk helicopters so that they could be redeployed to effectively serve our troops in current combat missions. Currently, PMO MEDEVAC has the goal to refurbish more than 335 Black Hawk helicopters by 2020. Its mission is to manage the MEDEVAC configuration and ensure that the installed MEP will allow the Recap MEDEVAC Black Hawks to meet the standard.

During engagements in Korea and Vietnam, the military has learned a great deal about medicine, particularly the role that rapid evacuation plays in the ability to treat injuries and reduce mortality. Since then, medical personnel have been battling what they call the “golden hour.” If patients can receive definitive treatment within the first hour after being injured, chances are very high that they will survive. The Army has a policy in place to reach injured Soldiers and remove them from the battlefield as quickly as possible. MEDEVAC helicopters help to fulfill that policy. Using the knowledge obtained throughout military history, the newer model and Recap MEDEVAC helicopters are being outfitted with the most effective and applicable medical technology available.

Charlie Paschal, project manager MEDEVAC MEP, serves as the liaison between USAMRMC and the Assistant Project Management MEDEVAC through a partnership with Redstone Arsenal in Hunts-

ville, Ala. USAMRMC and APM MEDEVAC have been working to update the UH-60 fleet with the most applicable technologies and products to support current missions. Relying on APM MEDEVAC’s aviation expertise, Paschal and USAMRMC will provide the medical expertise for this effort. “It is all about saving Soldiers’ lives. If we do our job right, there will be modernized medical evacuation helicopters above the battlefield doing just that. It is a privilege to be a part of this effort,” says Paschal.

USAMRMC’s expertise will be manifested in the form of five main medical subsystems. These components will give Recap Black Hawk helicopters the capability to address and treat casualties on today’s battlefield. While some of the changes to the Recap Black Hawks will be minor, such as the modification of a window or the addition of an infrared device, they will add capability to the Recap Black Hawks and help medics save lives. The five components being added to the aircraft include:

- The Forward Looking Infra-Red Sensor – Locates injured Soldiers on the ground using modern sensor technology and helps crewmen scan a landing zone to ensure that an area is safe and free of opposing forces.
- The Interim MEDEVAC Mission Support System, which includes three components:
 - » The updated Patient Handling System. The original system was a carousel on a rotating bulkhead in the middle of the helicopter; it held four patients



and was extremely heavy. In the updated system, a litter is loaded onto shelves that are mounted on the outside bulkheads of the helicopter. These shelves move up and down to allow for easier loading.

- » The Smart Window. A new, sliding window that replaces the original bubble window on the cargo door and allows a medic to look out of the aircraft to perform necessary functions of takeoff and landing more easily when wearing equipment.
- » The Internal Communication System Relocation Kit. Moves the helicopter's internal communication system and its components to the rear of the helicopter, which allows a medic to move more easily throughout the cabin while treating patients.

- The Advanced Medical Oxygen Generating System – Located underneath the engine compartment, this system takes high-pressure air that is being generated by the helicopter's jet engine into medical-grade oxygen. The AMOGS replaces traditional medical cylinders that were a hazard because they had the potential to explode if struck by gunfire, a major concern in a combat environment. If the AMOGS is struck, it simply stops functioning.
- The Environmental Control System – Provides a heating system in the cabin of the helicopter to reduce the chance of hypothermia in vulnerable patients.
- The Telemedicine System – Serves as the medic's line of communication with ground-based health care providers. Two-way communication allows medics to consult with doctors and obtain prior approval to provide certain treatments as well

as track a patient's treatment history before arrival at a field hospital.

Currently, MEP and the team at Redstone are retrofitting aircrafts piece by piece. Because the effort is time sensitive and it is important to get these aircrafts off the ground, the team works on them as they are received, adding components as they become available. Each aircraft is then entered into a system and tracked for future opportunities to complete the work. The team aims to complete the rework of each aircraft in the course of one year.

In 2012, the first batch of modernized Recap MEDEVAC Black Hawks will be deployed in theater to support the combatant commanders. MEP and APM are pleased to provide support to this effort.

*Chelsea Bauckman
USAMRMC Public Affairs*

An Army medic utilizes the newer capabilities installed in a Recap MEDEVAC Black Hawk as a part of the MEDEVAC Recapitalization Program. These new capabilities ensure that an aircraft meets current mission requirements and needs.



NMHM Opens in Silver Spring; Continues a Busy Year of Exciting and Fun Public Programming



Photographer Louie Palu speaks about covering the war in Afghanistan, which included documenting more than 100 aeromedical evacuation missions in Kandahar. Palu shared his experiences and photographs at the NMHM's Science Café in Silver Spring, Md.

From helping children create sugar skulls to hosting a talk on insect mimicry, the National Museum of Health and Medicine's staff has had a busy, fun-filled fall of programming in addition to opening the museum at its new location in Silver Spring, Md.

After completing its move from Washington, DC, over the summer, NMHM opened at the Fort Detrick-Forest Glen Annex Sept. 15. The museum began giving tours again to the public and resumed offering its educational outreach programs. The following month, the museum hosted two programs—one at the Silver

Spring Civic Building and the other at the museum. Photographer Louie Palu spoke about his experiences covering the conflict in Afghanistan at the museum's Science Café Oct. 11. He documented more than 100 aeromedical evacuation missions in Kandahar in 2010 and said that although the assignments were hard—both physically and emotionally—he was glad he was able to capture the stories of the Soldiers and Afghans alike. "It's important to see the war from as many angles as possible," Palu said.

The museum also celebrated Halloween with a program that focused

on Día de los Muertos, or Day of the Dead, a holiday that celebrates the human cycle of life and death. More than 100 children and adults decorated sugar skulls with yarn, glitter, feathers, and beads; made skull masks; and learned about skulls from a museum staff member.

In November, Mike Turell shared his knowledge of insect mimicry and camouflage at the museum's Science Café. Turell, research entomologist at the U.S. Army Medical Research Institute of Infectious Diseases, used his colorful collection of preserved insects to tell attendees about the various ways insects use camouflage techniques as defense mechanisms in the wild. He also shared stories of how he has witnessed some of those techniques firsthand. At the end of the program, Turell brought out two of his crawly friends: a live hissing cockroach and a walking stick insect. He allowed participants to take turns holding both insects.

In honor of Veterans Day, the museum hosted a special open house and invited veterans groups from around the area to attend. The museum's docents were on hand to give tours of the exhibits, which included a special temporary exhibit of photographs that showcased our nation's veterans aiding their colleagues as well as civilians.

In addition to conducting programs and activities, the museum has offered several tours to the Fort Detrick-Forest Glen Annex community, including staff from the Walter Reed Army Institute of Research, the Armed Forces Pest Management Board, and



Andi Sacks, a volunteer docent at the NMHM, helps young visitors embellish their sugar skulls. The activity took place during the museum's Halloween program Oct. 22.



A young participant holds a live, hissing cockroach following the NMHM's Science Café Nov. 8. The program, "Insect Mimicry," featured Mike Turell, research entomologist at the USAMRIID.

the National Capital Area Medical Simulation Center.

Currently, the museum is closed but will open May 2012, just in time for the celebration of the museum's 150th anniversary. In the meantime, public programs staff will continue to conduct outreach programming at schools and other facilities as well as Science Cafés in Silver Spring. NMHM's outreach programs offer participants a very unique opportunity to learn

about forensic identification, human anatomy, the Civil War, and more.

"We've had a very busy year and we are proud of all we've accomplished" said Andrea Schierkolk, NMHM public programs manager. "The museum has presented or brought a number of interesting and educational programs to the public, and we look forward to offering many more over the winter months and in the spring."

For more information about NMHM upcoming events and programs, visit <http://www.nmhm.washingtondc.museum>.

*Melissa J. Brachfeld
National Museum of Health
and Medicine Public Affairs*

National Industries for the Blind Helps Wounded Warriors



NYCIB employee Torrie G. Paddilla works on a litter strap.
Photo courtesy of Angela Poffenberger

Did you know a person is considered legally blind when the best corrected visual acuity is 20/200 or the visual field is 20 degrees or less, meaning he or she can only see the “E” on the eye chart?

Seventy percent of people who are blind lack employment, but the National Industries for the Blind has a vision to change that statistic.

Look at the pad of paper you’re using to take notes. Look at the pen you’re using. Do they say SKILCRAFT? If

so, then they were manufactured by NIB. Employees who are blind have manufactured or assembled those supplies for decades. And that’s not all they’ve manufactured.

NIB and the U.S. Army Medical Materiel Development Activity’s Medical Support Systems Project Management Office have worked together for years under the Ability One Program. This program is a federal purchasing program that implements the Javits-Wagner-O’Day Act, which is a federal law that requires federal agencies to

purchase products and services from nonprofit agencies employing people who are blind or have other disabilities. NIB has 90 associated nonprofit agencies all over the country.

“Our partnership with NIB is essential to providing medical support solutions to the Joint Armed Forces,” said Steve Hawbecker, project manager of the MSS at USAMMDA.

MSS works with the New York City Industries for the Blind on the patient litter straps that secure the wounded Soldier to the litter and with Arizona Industries for the Blind on the litters that transport injured Soldiers from the battlefield.

“There is great pride in knowing we are doing our part to support our service men and women while sustaining and creating jobs in one of the country’s most densely populated areas for people who are legally blind,” said Brenda Mee, director for NYCIB’s Business Development. “This is truly a win-win for all.”

New York City Industries for the Blind, Inc. and Litter Straps

NYCIB has not always manufactured the litter straps but individuals who are blind have. In the early 1990s, Helen Keller Services for the Blind made the straps. When it closed, Lighthouse International of New York City bought the equipment and inventory and hired the HKS employees to continue manufacturing the litter straps.

When the manufacturing division of Lighthouse International of New York City closed, NYCIB was created, hiring



all of the displaced blind employees. Successful in securing the Defense Logistics Agency contract for the litter strap, NYCIB has made the litter straps ever since. Every year NYCIB provides 45,000 straps to the military.

Now that the litter straps are changing, MSS began searching for a strap alternative and teamed up with NYCIB to develop strap prototypes with buckle release options that offer greater safety and reliability. Testing showed that the prototype with a strong, load-bearing quick-release buckle with a two-part fastener was more reliable. The new litter strap requires additional stitching, which creates new jobs at NYCIB.

The litter straps are in approximately 75 different medical equipment sets, such as the ground, air, and mine-resistant ambush-protected ambulance sets. The U.S. Army Aeromedical Research Laboratory is finalizing airworthiness certification of the straps, and the new straps will be available in 6 to 12 months.

“This new strap has surpassed our expectations at meeting a capability gap and will greatly improve our ability to evacuate casualties safely,” said Jaime Lee, USAMMDA product manager.

Arizona Industries for the Blind and Standardization of Litters

AIB began building litters for the Army in 1982, and it has been improving them ever since.

The litters transport wounded Soldiers while helping to prevent further injury. The litter covers are made from a polypropylene mesh material, which is flame retardant and resistant to chemical warfare agents and decontaminating solutions. The litter supports up to 1,600 pounds. For shipping and storage, the litter collapses. Retractable handles allow for easy grip, and aluminum legs provide strong support. All of the components for the litter are machined and assembled by 25 employees at AIB. Each year AIB provides the military with about 20,000 litters.

AIB and MSS are working together to modernize the current litter and make a single litter that is compatible with all casualty evacuation platforms (standard ground ambulances, MRAP ambulances, Black Hawk medical

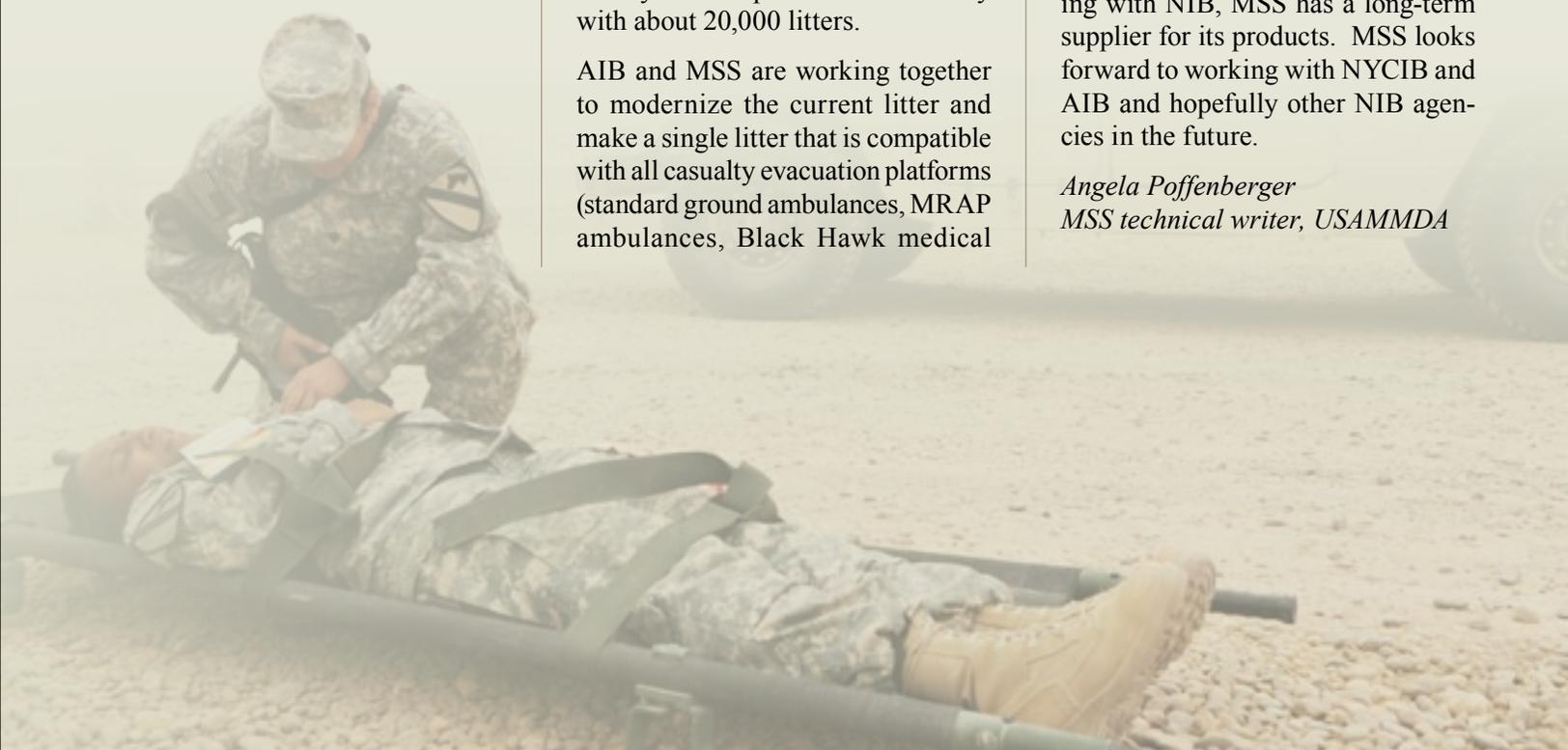
evacuation helicopters, fixed wing aircraft, etc.) while still being a cost-effective solution.

“Standardization of litters in the Department of Army is a big issue, and this is the first step in the right direction to address this,” said Lee.

This effort began with a Request for Information from the Field Assistance and Science Technology Team on the many types of litters on the battlefield. With all of the different types of casualty evacuation and MEDEVAC platforms, litter standardization needs to be addressed. Currently, the standard NATO litter does not fit in the MRAP ambulances. The new litter will include the strengths of the standard NATO litter, such as decontaminable and folding, and will work in any ground and air evacuation assets. In addition, the litter needs to be functional, simple to operate and assemble, compact, and lightweight.

In addition to the reasonable price and employment opportunities, by working with NIB, MSS has a long-term supplier for its products. MSS looks forward to working with NYCIB and AIB and hopefully other NIB agencies in the future.

*Angela Poffenberger
MSS technical writer, USAMMDA*



USAMRIID Visit Offers Nursing Students First-Hand Look at Research



More than 50 students from the University of Maryland School of Nursing at Shady Grove visited USAMRIID Oct. 5 to learn about the institute's mission and research. The students also heard from a variety of speakers about career opportunities for nurses in research and other specialties.

Photo by Sissy Riley, USAMRIID VIO

More than 50 students enrolled in the University of Maryland School of Nursing's Bachelor of Science in Nursing program at the Universities at Shady Grove gained a broader perspective of the career paths available to them after spending a day at Fort Detrick Oct. 5.

Since 2005, the U.S. Army Medical Research Institute of Infectious Diseases has been hosting students from UMSON's Community/Public Health Nursing course for a series of presentations that highlight military medicine, research careers, and the relationship between nursing and science.

"This time, we had our biggest crowd yet," said Cheryl Magers of USAMRIID's Medical Division, who

coordinates the visit twice a year. "It's been growing by leaps and bounds."

Each semester, the newest group of senior nursing students—along with their instructors—is offered the opportunity to come to USAMRIID, according to Magers. The visit counts toward their course credit while they learn about the different nursing opportunities offered at USAMRIID and take a tour of the building.

Linda Humbert, RN, MPH, MBA, a clinical nursing instructor at USG, has been a part of the program from the beginning. Her group had about 10 students from Frederick County, and Fort Detrick had been a topic of discussion given its role in the Frederick community.

"One of my students had a friend whose mother worked at USAMRIID,"

Humbert recalled. "So we asked if it would be possible for the nursing students to get a tour."

Her request went to USAMRIID's Medical Division, where the nursing staff embraced the idea. Not only did they offer a tour, they put together a program that has grown into nearly a full day of instruction. And while the idea started with Humbert and a small group of students, the opportunity is now made available to all the community health nursing students at the Shady Grove campus.

Crystal DeVance-Wilson, MSN, MBA, APRN, RN, course and clinical coordinator for the Community/Public Health Nursing course, said the USAMRIID visit is a "pleasant surprise" for many of the students.



“I think the students sometimes have a limited view of what community and public health nurses do,” she said. “This is an opportunity to see what’s out there for them beyond a hospital setting. And not only do they start to see the different roles of nurses in the community, they are able to relate what we talk about during the visit to what they are learning in class.”

The latest visit featured an overview of USAMRIID’s mission and research; presentations on clinical research, including human use and ethics, the role of the protocol nurse, and quality assurance; and talks about international nursing research and career opportunities for military nurses.

“The nicest thing about this program is that all the students take research courses, but here they get to see it in action,” Humbert said. “It enables them to see research in a real-life setting. And we really appreciate the hard work the USAMRIID staff does to set up this visit and make us feel welcome every time.”

Student Cody Alexander, a radiology technician pursuing his Bachelor’s of Science in Nursing degree, said he found the visit to be very enlightening.

“I have lived in Montgomery County for almost eight years now, and I had no idea that so much groundbreaking work was being done right up the road in Frederick,” he said.

Alexander and the rest of his classmates will be graduating this December, each with a BSN. The next nursing student rotation is scheduled to visit USAMRIID in March 2012.

*Caree Vander Linden
USAMRIID Public Affairs*



Student Spotlight: Cody Alexander

Editor’s Note: *We caught up with nursing student Cody Alexander after the USAMRIID visit to gain a student’s perspective on the event and how it may have influenced his career path.*

How did you get interested in a nursing career?

I originally entered the health care field with the intention of being an x-ray technician (which I am currently.) During my radiology schooling, I had the opportunity to interact with nurses in the hospital, and I became very interested in nursing, especially in the intensive care unit. I think I admired the way they could work around so much technology in such a fast-paced environment and appear so at ease and still be able to be so patient centered. During my x-ray schooling I began to take the prerequisites for nursing and started on my BSN after graduating from x-ray school.

What did you think of the USAMRIID visit?

The visit was very comprehensive in that there appeared to be opportunities for any type of nurse from research to clinical to community. I also wanted to comment on how well organized the presentation was; I really felt like a respected guest and that our visit was taken very seriously.

Was there anything in particular that stood out?

Yes, the opportunities for nurses at USAMRIID and in the Army at large. It seems like there is a place for any interest. I am interested in critical

care and possibly research down the road, and I could definitely see the Army providing these opportunities for me.

What do you hope to do after graduation?

I will be working at the University of Maryland Medical Center in the Surgical ICU for at least 18 months after graduation. I want to go back to school within the next five years; however, I do not yet know from what avenue I will make that happen.

Are you interested in a research or military career?

I am very interested in learning more about what careers the military has available to nurses. I am most interested in developing my clinical skills at this time; however, in the future, I can also see myself participating in research.

Are there any final thoughts you’d like to share?

I just wanted to say thank you for the opportunity and the hospitality that USAMRIID extended to my class. The experience has really got me thinking about exploring the military as a career opportunity.

Exercise Offers First Responders Unique Opportunity to Test Capabilities

The U.S. Army Medical Research Institute of Infectious Diseases hosted a training exercise Sept. 7 at Fort Detrick's Area B to help local first responders test their ability to respond to a potential biological terrorist event. Participants included members of the Washington, DC, fire and police departments, as well as the National Guard's 33rd Civil Support Team, which would be called in to offer assistance to local first responders in the National Capital Region.

As the Department of Defense's lead medical research laboratory for biodefense, USAMRIID works to develop vaccines, drugs, and diagnostics to protect our nation's armed forces. The institute also offers specialized training to CST personnel, first responders, and others on how to identify potential biological agents in a realistic setting.

Course director Rick Arestad says the training site offers a unique opportunity to bring first responders together to exercise the capabilities that each organization brings to the scene. A key piece of the drill is facilitating communications between all the players—in effect, building those working relationships before there is an emergency so that response effectiveness can be maximized when teams are dealing with a real event.

The exercise was based on a scenario involving a clandestine laboratory located in a trailer at the farm. Police officers were first on the scene and had to neutralize the threat before calling for fire and HAZMAT support. A decontamination line was established based on the potential for contamination of personnel with a (simulated) biological agent. Next, CST personnel arrived to establish

a communications center, collect material from the mock laboratory, and conduct an initial analysis of the samples.

"This is a capability of USAMRIID that is probably not very well known," Arestad commented. "But we are one of the few places in the region that can provide this type of training and do so with realistic [biological] sample support."

Arestad added that these types of exercises have generated a great deal of interest in the first responder community, and he expects other teams to request the opportunity to train at Fort Detrick.

*Caree Vander Linden
USAMRIID Public Affairs*

USAISR

Awards

Meritorious Service Medal

1st Sgt. Jose A. Rojas
Capt. Cheryl K. Steele
Staff Sgt. Robert E. Torbert

Promotions

October

Sgt. Lee Olin Carver
Sgt. Victor Dale Gaines III
Col. Robert Taft Gerhardt

Sgt. Jovan Lezette Mercado
Sgt. Lobsang Palden

November

Lt. Col. Jurandir Joao Dallelucca
Staff Sgt. Gabriel Patrick Kennedy
Lt. Col. Keith Christopher Palm

December

Sgt. 1st Class Hugo Y. Romanmarzan

USAMMA

Promotions

December

Sgt. Theresa Raye Heitchler
Staff Sgt. Monique McCutchen
Spc. Raygina Rose Medeiros

6MLMC

Award

Meritorious Service Medal

Master Sgt. Derrick L. Gray

USAMRMC

Promotion

November

Col. Richard Patrick Starrs

Award

Meritorious Service Medal

Sgt. Maj. Horace B. Tyson

USAMMCE

Award

Meritorious Service Medal

Staff Sgt. Maria L. Negrete

Promotion

December

Staff Sgt. Benjamin Michael Haley



USAMRIID

Award

Meritorious Service Medal

Lt. Col. Bryony W. Soltis

Promotions

October

Lt. Col. Christine A. Ege
Sgt. Kimberly Lenette Fields
Spc. Bailey Palmer
Sgt. Jennifer Ann Ponzini

Spc. Julia Araceli Puenta
Col. Randall Lee Rietcheck
Lt. Col. Wendy Lynn Sammons
Jackson

November

Spc. Michele Lynne Johnson
Sgt. Christopher Thomas Olson
Lt. Col. Larry J. Shelton, Jr.

December

Lt. Col. Jennifer M. Kishimori
Spc. Jonell Meiyen Lee
Staff Sgt. Jessy Leroy Ring
Sgt. Dell Wayne Rocco

USAMRICD

Promotion

December

Staff Sgt. Vicki Ann French

USARIEM

Promotion

Capt. Adam D. Cooper

USAARL

Awards

September

Meritorious Service Medal

Capt. Michael Crivello

October

Army Commendation Medal

Sgt. Kathleen Caplinger

Army Achievement Medal

Pfc. Yesenia Contreras

Staff Sgt. David Lopez
Pfc. Monica Manalo
Spc. Summer Nomura (2)
Spc. Corey Ziegler

Achievement Medal for Civilian Service

Alexandria Austermann
Kelley Beavers
Tony Bloom
Sherrie Davis

Jane Heath
Sylvia Hughes
Rose Jackson
Tyronne Leonard
Deborah McKinnon

November

Army Achievement Medal

Sgt. Kathleen Caplinger

Certificate of Appreciation

Pfc. Monica Manalo

Achievement Medal for Civilian Service

Jaye Montgomery

WRAIR

Awards

Meritorious Service Medal

Staff Sgt. Erik R. Pollender

September

Performance Award

Jeffrey Caudill
Megan Dowler

Special Act Award

Michael Julius
Yoon Kwak
Ryan Ranallo
Douglas Shaffer
Kevin Turbyfill

October

Special Act Award

Calvin Ashcraft
Vonda Brown
Taneika Dawkins
Kevin Diggs
Nickole Elliott
Roy Hardy
Availeo Hubbard
Reginald Johnson
Albert Kabbara
Jerrie Moore
Sherlita Phillips
Don Porter
Walter Sanders
Fran Tyson
Armand Wallace
Columbus Watson
Cynthia Whitaker

November

Special Act Award

Jason Copen
Robert George
Lisa Ware

Payout Above the Compensation

Gerald Gordon
Brandon Whitfield

Retirement with Commander's Award

Richard Wilkerson

Retirement

Elizabeth Moran

Promotions

Pfc. Jerry Vonzell Frink, Jr.

October

Col. Veronica Ruiz Baechler
Col. Michael Patrick Kozar
Lt. Col. Victor Melendez, Jr.

November

Sgt. Janina Renee Mayfield
Lt. Col. Sandi K. Parriott
Sgt. Zachary Bryan Skigen

December

Cori Walden