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Command claims three of Army's 10 'greatest inventions'

by Staff Reports

Three of the Army's top 10 greatest inventions for 2003 hail from the U.S. Army Medical Research and Materiel Command.

The Army honored the teams of inventors from the Walter Reed Army Institute of Research and the Telemedicine and Advanced Technology Research Center at a June 23 luncheon at the Hilton in McLean, Va.

"The inventions submitted demonstrate the vast experience within the Army laboratory community as a sincere commitment of these laboratories to improving the readiness of our Army," said Lt. Gen. Richard A. Cody, the Army's deputy chief of staff, G-3 and the final selection authority for the program.

The Army developed the annual Greatest Inventions Program to recognize the Army's best new technology solutions impacting Soldiers. The Army--from active duty divisions to the Training and Doctrine Command to the Army's G-3--chose the Army's 10 winning programs based upon their impact on Army capabilities, inventiveness and potential benefit outside the Army.

The Golden Hour Container was created by the Walter Reed Army Institute of Research in Silver Spring, Md. The container can transport red blood cell units without using batteries, ice or electricity. It was designed to transport the blood cell units within military facilities and to the Forward Surgical Teams where delayed evacuation of wounded Soldiers can occur. The container is reusable and maintains the contents at the appropriate temperatures for more than 78 hours. While designed specifically for transporting red blood cell units, inventors believe its usefulness will extend to other items such as vaccines and reagents. The container has a carrying strap and comes in Army desert, woodland and Marine camouflage.

"The point of the box is for the medic to have blood with him, ready to use when he needs it," said Col. Tom Reid, former chief of the Department of Blood Research at WRAIR, in an interview in 2003.

The VIRGIL Chest Trauma Training System is the invention of the Simulation Group, working with the Telemedicine and Advanced Technology Research Center at Fort Detrick, Md. The training system combines the use of a mannequin and a computer-based graphic interface. It is used during training exercises and tracks the internal position of chest darts and chest tubes as well as provides feedback to the user.

"The system works to teach anybody who's going to deal with chest trauma, especially in a combat situation, how to diagnose and treat the victim," said Dr. Steve Dawson of Massachusetts General Hospital, whose team invented VIRGIL. "It will teach anyone from an 18-year-old medic who's never seen this stuff before to a thoracic surgeon who wants to brush up."

The Battlefield Medical Information System-Telemedicine was designed by the Telemedicine and Advanced Technology Research Center, Fort Detrick, Md. BMIS-T is similar to a handheld computer with special programming developed to assist deployed medical personnel with diagnosis and treatment. It can be used to record patient clinical encounters and transmit those records to a central repository, officials said. The system holds service members' medical records including immunizations, dental and vision records as well as known drug allergies. BMIS-T is programmed with healthcare reference manuals and can provide medical personnel with suggested diagnosis and treatment plans.

"Basically, the BMIST is a point-of-care diagnostic tool for first responders--be it a medic, a PA (physician's assistant), a doc--that captures basic data from a medical encounter. They put in the symptoms, and it comes up with a treatment plan based on the user's skill level," said Tommy Morris, a former Army medic and BMIS-T's inventor.

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

Other command entries included the Portable Aquatic Biomonitor for Drinking Water Protection from the U.S. Army Center for Environmental Health Research at Fort Detrick; the Smallpox Inoculation Training Unit from the Telemedicine and Advanced Technology Research Center at Fort Detrick; the DREW Data Recording Workstation from the U.S. Army Institute of Surgical Research in San Antonio; the Electronic Surveillance System For The Early Notification Of Community-Based Epidemics (ESSENCE) from the Walter Reed Army Institute of Research in Silver Spring, Md.; and the Sleep Watch from the Walter Reed Army Institute of Research. (*Editor's Note:* Some information provided by an Army News Release)

http://www.dcmilitary.com/army/standard/9_15/national_news/30221-1.html