

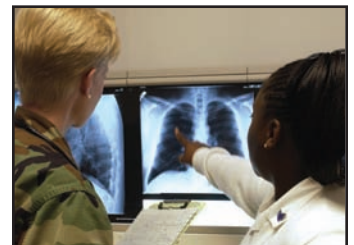
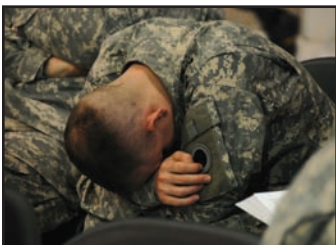
USAMRMC 2008

U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND

PROTECT THE WARRIOR – SUSTAIN THE FORCE

USAMRMC Vision: We are the world's experts and leaders in the military relevant biomedical research and medical materiel communities, delivering the best medical solutions to enhance, protect, treat, and heal our Warfighters.

USAMRMC Headquarters at Fort Detrick, Maryland, supports 14 laboratories and organizations located throughout the world. Six USAMRMC medical laboratories and institutes perform the core science and technology (S&T) research to develop medical solutions on the battlefield. These centers of excellence specialize in various areas of biomedical research, including infectious diseases, combat casualty care, operational medicine, clinical and rehabilitative medicine, and chemical and biological defense, and are staffed with highly qualified scientists and support personnel. A large extramural research program and numerous cooperative research and development (R&D) agreements provide additional S&T capabilities by the leading R&D organizations in the civilian sector. Eight USAMRMC supporting organizations focus on other command requirements, such as medical materiel development and logistics, medical health facility planning, medical information management/information technology and congressional special interest programs, to complete the full life cycle of medical materiel acquisition. USAMRMC's expertise in these critical areas has led to numerous accomplishments in 2008:



- The Battlemind Training Program made critical strides in integrating behavioral health training targeted to all phases of a Warrior's deployment cycle. Designed for Warriors, leaders, and military families, it focuses on maintaining the mental well-being of our service members. Key teaching points for both PTSD and mild Traumatic Brain Injury (TBI) have been incorporated.
- The 2008 Army Modeling and Simulation Team Award for Test and Evaluation was awarded to the FOCUS (Facial and Ocular Countermeasures Safety) head form — a unique, state-of-the-art physical head form or anthropomorphic test device capable of measuring impact loads to the eye and face to determine injury risk and the benefit of potential face and eye protection devices.
- In collaboration with Powder-Med Vaccines, USAMRMC scientists developed vaccines against the Hantaan and Puumala viruses, two types of hantaviruses that are known health threats to U.S. troops stationed in Europe and Asia and sometimes cause fatalities. Earlier this year, the two vaccines entered Phase 1 clinical testing, the first step toward FDA licensure.
- The INJURY 8.2 Blast Lung Model received the Verification, Validation, and Accreditation (VV&A) certification for implementation. The VV&A process validates and formally recognizes that the INJURY model is *the* approved model for assessing blast lung injury in survivability assessments that support the DoD Live Fire Test and Evaluation Program.

ENHANCE PROTECT TREAT HEAL
our Warfighters

Program Outcomes Protect and Sustain the Health and Safety of the Force



- The Armed Forces Institute of Regenerative Medicine was established, dedicated to repairing battlefield injuries through novel regenerative techniques for the treatment of damaged tissues and organs.
- The tele-TBI program was established across Army regional medical commands to serve injured service members and their families with better connectivity to health care providers.
- The Psychological Health/TBI Research Program awarded 201 research grants to improve prevention, diagnosis, treatment, and rehabilitation of service members, veterans, and their families.
- Various publications were completed including:
 - ▶ “Biomedical Enablers of Operational Health and Performance” regarding operations in harsh environments
 - ▶ “TBMED 505: Altitude Acclimatization and Illness Management”
 - ▶ “Gender Factors Contributing to Performance and Musculoskeletal Injury in Military Recruits”
- The technical feasibility of a novel Nutrient Delivery System for on-the-move hydration was demonstrated and is currently in various field trials.
- USAARL received the U.S. Army Greatest Inventions Program Award for the noise-immune stethoscope.
- The Joint Trauma Analysis and Prevention of Injury in Combat (JTAPIC) team was awarded a Collaboration Team of the Year award as part of the Army R&D Laboratory of the Year Award competition. The JTAPIC project is a one-of-a-kind partnership among the intelligence, operational, material, and medical communities.
- The new JTAPIC Personal Protective Equipment (PPE) Analysis Network received and analyzed more than 900 pieces of PPE from those killed in action and more than 60 pieces from those wounded in action, and results were captured in a statistical and epidemiological analyses database.
- The Epidemiology and Prevention of Injury in Combat team was awarded “Best Research Poster” at the 11th Annual Force Health Protection Conference for their work entitled “Prevention of Injury in Tactical Vehicle Rollover Accidents—HMMWV.”
- 400 UAH CASEVAC Kits, 691 MRAP Ambulances, and over 5,880 CASECAC Kits for MRAP vehicles were designed, tested, and fielded to Iraq.
- 36 projects worth more than \$2 billion were awarded for the design and/or construction of medical clinics, additions, and facilities worldwide.
- Four military medical construction projects worth more than \$50 million were completed.
- A Biologics License Application was submitted to the FDA for a Japanese Encephalitis Vaccine (currently approved for use in Europe and Australia) and an Adenovirus (Types 4 and 7) Vaccine, as well as a 510(k) Application for a Leishmania PCR assay.
- A dengue vaccine (live, attenuated) entered Phase 2b development.
- Planning began for a pediatric trial in USAMRU-Kenya of the RTS/S malaria vaccine.
- Intravenous artesunate approved for compassionate use in the U.S. for patients hospitalized with severe malaria disease and saves lives.
- Significant accomplishments were achieved in HIV care:
 - ▶ More than 140 facilities/sites were supported in providing HIV care and treatment.
 - ▶ 46,850 patients are on anti-retroviral therapy.
 - ▶ 330,393 people reached through Abstinence Be Faithful prevention programs; 68,123 reached through Abstinence Only.
 - ▶ 308,615 pregnant women were tested through prevention of mother-to-child-transmission programs; 13,742 of those found to be HIV+ were provided with antiretroviral prophylaxes.
- 1,701,140 doses of flu vaccine were shipped to Army activities in support of the 2008 flu season.
- Six new Philips Brilliance 16-Slice Fast CT Scanners were deployed in support of combat health care operations.
- First in-patient Bar Coding Point of Care system for the AMEDD was developed and deployed.
- First Class VIII Sustainment-Level Reset Program was established for redeploying units. To date, the Force Sustainment Directorate has reset 13 brigade combat teams and 9 enabling brigades valued in excess of \$54 million.
- First ever Class VIII Logistics Assistance Representatives and Forward Repair Activities-Medical program was implemented, increasing computer tomography readiness rating from 57% to 90% in theater.
- More than \$2.65 billion in contracts and assistance agreements were awarded.

People in the News...

- Dr. Roger Tsien, a University of California, San Diego researcher funded by the Army's CDMRP, wins the Nobel Prize for his development of the green fluorescent protein.
- USAMRIID scientist, Dr. Robert Kyle Pope, was awarded a Fulbright Scholar Grant to conduct research in Strasbourg, France, exploring the function of a newly discovered cell type.
- USAMRIID microbiologist, Dr. Lisa Hensley, was selected as one of 2008's Ten Outstanding Young Persons of the World by Junior Chamber International.

For more information, please visit:

<http://mrmc.amedd.army.mil>

the best medical solutions