ANNUAL HISTORICAL REPORT CY 2012

UNITED STATES ARMY MEDICAL COMPONENT ARMED FORCES RESEARCH INSTITUTE OF MEDICAL SCIENCES (USAMC-AFRIMS)

DIVISION MISSION

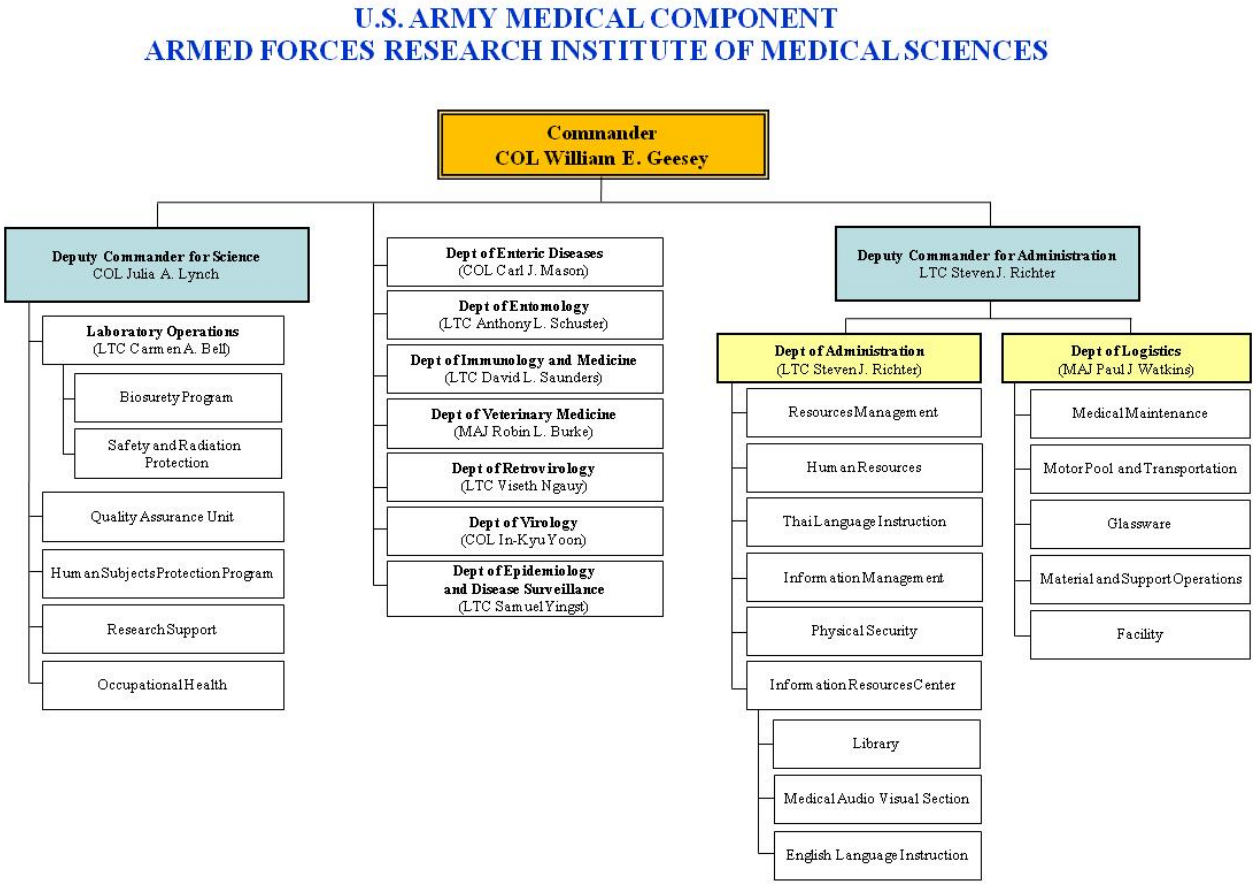
The USAMC-AFRIMS is the U.S. Army Medical Component of a Royal Thai Army-U.S. Army joint command on the grounds of the Phramongkutklao Army Medical Center in Bangkok, Thailand. The current Commander of the U.S. Component is COL William E. Geesey, MS. The Institute is one of five U.S. Army and Navy overseas medical research labs and is a Special Foreign Activity of the Walter Reed Army Institute of Research (WRAIR) located in Washington, DC, which is subordinate command of the U.S. Army Medical Research and Materiel Command (USAMRMC), headquartered in Ft. Detrick, Maryland.

The mission of the USAMC-AFRIMS is medical research, disease surveillance, and development and evaluation of medical products for militarily important infectious diseases. These products are generally drugs or vaccines, but may be diagnostic tests or specialized knowledge. The USAMC-AFRIMS is an agency within the U.S. Embassy Mission and the Commander is a member of the Country Team. The diseases focused on by the Institute are public health problems in Thailand and the region, and thus are areas of common interest with the host country. These diseases include malaria, HIV/AIDS, dengue fever, hepatitis, and diarrheal diseases. The USAMC-AFRIMS Commander and staff also serve as subject matter experts for PACOM on medical issues and tropical disease threats in Thailand and other countries in Southeast Asia.

ORGANIZATION AND SUPERVISORY PERSONNEL

Colonel William E. Geesey assumed command on 27 July 2012. Additionally, Lieutenant Colonel Steven J. Richter, Deputy Commander for Administration, and Colonel Julia A. Lynch, Deputy Commander for Science joined the team in July. Staffing during the year included 29 active duty Army personnel, 1 General Schedule (GS), 110 Foreign Service Nationals (FSN), 254 Cooperative Agreement (CA) employees, and 96 contractors. Operational funding for 2012 was approximately $22 million. The Command occupies approximately 180,000 ft^2 of floor space in seven administrative and research buildings in Bangkok, and has fixed field sites in Thailand, Cambodia, Nepal, and the Philippines.

PERSONNEL



UNIQUE BIOMEDICAL RESEARCH INFRASTRUCTURE

The Department of Veterinary Medicine's facility is AAALAC-accredited and contains a specific pathogen-free, Indian-origin, rhesus monkey breeding colony and an ABSL-3 animal suite.

The Institute is designated as a World Health Organization (WHO) Collaborating Centre for Diagnostic Reference, Training and Investigation of Emerging Infectious Diseases.

ESTABLISHED FIELD SITES

The AFRIMS-Kwai River Clinical Center (AKCC) is a field site located in Sangkhlaburi of Kanchanaburi Province, Thailand near the Myanmar (Burma)-Thai border. This Department of Immunology and Medicine field site is ideally situated to near the epicenter of drug resistant malaria and is thus an ideal site for surveillance of malaria and other infectious diseases in this poorly characterized region. Other efforts have focused on field trials of new anti-malarial compounds, such as the new U.S. FDA GMP formulation of IV artesunate. AFRIMS scientists completed an FDA regulated critical dose ranging study of this drug in collaboration with AFRIMS' sister lab in Kenya in 2007. Currently, AFRIMS is conducting influenza surveillance at this site. In 2013, AFRIMS Immunology and Medicine Department will conduct a clinical

trial for malaria drug resistance at the site. The AKCC field site is also an ideal clinical tropical medicine training site. Over the years, scores of medical students, residents and fellows have participated in training rotations at the site, some electing to pursue full time specialization in tropical medicine, infectious diseases, or clinical research after their training experience at the AKCC.

In 2005, the Department of Immunology and Medicine developed new field sites in Western Cambodia along the Thai border due to the declining malaria burden on the Thai side, and multiple studies have since been conducted in this global 'hot spot' for multi-drug resistant malaria. As part of this effort, AFRIMS' scientists developed new clinical trial sites in Cambodia, and performed malaria prevention pilot clinical trials of currently used antimalarials in Cambodia. Few drugs remain active there, due to years of multidrug resistance. AFRIMS researchers performed critical pharmacokinetic, pharmacodynamic, efficacy, and toxicity studies in Cambodian military and civilian personnel with uncomplicated malaria in the Thai border areas. The studies revealed declining efficacy of currently available drugs, answering key questions for the Cambodian government to guide policy, as well as highlighting the need for new drugs, such as tafenoquine, to treat and prevent malaria in Cambodia.

Kamphaeng Phet – AFRIMS Virology Research Unit (KAVRU), Kamphaeng Phet, Thailand: a 5,000 ft^2 facility on the grounds of the provincial hospital in Kamphaeng Phet for conducting field studies of dengue, influenza, and other emerging diseases. A multi-year, phase 3 dengue vaccine trial began there in 2011.

Walter Reed/AFRIMS Research Unit – Nepal (WARUN) is located in Kathmandu, Nepal and has a trained staff of 23 personnel working in a leased, 4-story research building. The Unit conducts studies and performs surveillance of diseases of military importance which are endemic to Nepal, such as diarrheal disease, febrile illnesses, vector-borne diseases, and influenza.

The Philippines – AFRIMS Virology Research Unit (PAVRU) is located in Cebu, Philippines with additional personnel in Manila. The Unit conducts field studies for emerging and re-emerging diseases to include dengue and influenza. PAVRU facilities consist of a research office and laboratory/data management space in Cebu City. A phase 3 dengue vaccine trial began in 2011.

SPECIAL EVENTS

Non-applicable