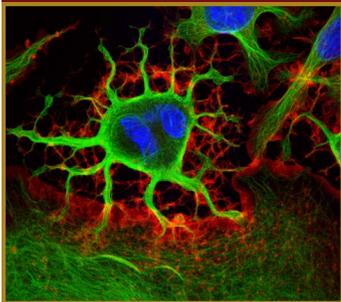


# USAMRIID



**“Biodefense  
Solutions  
to Protect  
our Nation”**



**Fort Detrick, MD**

## U.S. ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES



**S**ince 1969, USAMRIID has served as the Department of Defense’s (DoD) lead laboratory for medical biological defense research. While our core mission is to protect the warfighter from biological threats, we also investigate disease outbreaks and threats to public health. Research conducted at USAMRIID leads to medical solutions—therapeutics, vaccines, diagnostics, and information—that benefit both military personnel and civilians. USAMRIID is a subordinate laboratory of the U.S. Army Medical Research and Materiel Command.

### MISSION

Provide leading edge medical capabilities to deter and defend against current and emerging biological threat agents.

### VISION

To be the leader in the advancement of medical biological defense with world renowned experts dedicated to protecting our military forces and the nation.

### MEDICAL PRODUCT DEVELOPMENT

USAMRIID’s research, development, testing and evaluation efforts have resulted in the development of vaccines, currently

in various stages of clinical trials, to protect against the following biological threats:

- Anthrax
- Botulism
- Plague
- Ebola and Marburg hemorrhagic fevers
- Hantavirus
- Ricin toxin
- Staphylococcal enterotoxin B

We continue to develop new and improved vaccines, working with the Food and Drug Administration (FDA) to move medical products forward using the “animal rule.”

Under this rule, specifically designed for biodefense vaccines and drugs, products can be considered for FDA licensure using data from animal studies in cases where human clinical trials cannot be conducted. USAMRIID continues to be a leader in developing animal models for a variety of biological threat agents and validating that these models adequately reproduce critical aspects of human disease.

USAMRIID’s therapeutics program is focused on broad-spectrum antiviral and antimicrobial drugs against multiple biological agents. We also continue to discover and develop therapeutic interventions for diseases caused by toxins such as botulinum neurotoxin.

### RAPID IDENTIFICATION OF BIOLOGICAL AGENTS

USAMRIID develops new, faster diagnostic assays for medical identification to protect the warfighter against biological threats. We also evaluate and develop diagnostic instruments and technologies for use in forward field medical laboratories and with the Joint Biological Agent Identification and Detection System (JBAIDS), the diagnostics platform used across the DoD.

Through a partnership with the Centers for Disease Control and Prevention (CDC) and the DoD Global Emerging Infections Surveillance and Response System, USAMRIID transitioned the CDC diagnostic assays for avian influenza and swine flu to the JBAIDS platform, enabling all military organizations with the JBAIDS platform to use the CDC assays for rapid detection of these viruses.

In addition, we performed the necessary studies leading to an Emergency Use Authorization (EUA) from the FDA for use of these assays on the JBAIDS platform. In August 2014, the FDA issued an EUA for the Ebola real-time PCR assay developed at

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# **USAMRIID has led the nation in development and implementation of our biosurety program, setting the benchmark for other laboratories engaged in the national biodefense effort.**

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USAMRIID, which is currently being used in the U.S. (at CDC reference laboratories and state public health laboratories) and in West Africa (in support of the ongoing Ebola virus outbreak).

## **MAINTAINING SAFETY, SECURITY AND SURETY STANDARDS**

USAMRIID's biological surety program is governed by a broad set of Federal, DoD and U.S. Army regulations and policies. The program, which enables us to safeguard both the biological materials we use in our laboratories and the personnel who work here, consists of four key areas:

- **Biological Safety** – emphasizes safety training, risk management, environmental surveillance and occupational health screening.
- **Physical Security** – employs layered security measures to allow only authorized employees to access the areas in which biological materials are stored or used.
- **Personnel Reliability** – requires that all individuals with access to these materials meet the highest standards of reliability, including satisfactory completion of medical screening, safety training and background investigations.
- **Agent Accountability** – involves inventory control, shipping, transfer and destruction records, and observation of laboratory procedures.

## **TRAINING AND EDUCATION INITIATIVES**

Research performed at USAMRIID is translated into state-of-the-art

information for medical providers, laboratory personnel and first responders through our training and education programs:

- **Medical Management of Chemical and Biological Casualties (MCBC)** – prepares military and civilian health care professionals to effectively manage casualties of chemical and biological agent exposure (offered in conjunction with the U.S. Army Medical Research Institute for Chemical Defense).
- **Field Identification of Biological Warfare Agents (FIBWA)** – trains medical laboratory personnel in a realistic field setting.
- **Biological Agent Identification and Counterterrorism Training (BAIT)** – provides realistic training scenarios, facilities and subject matter experts to increase the ability of first responders to handle a biological threat event.

## **SUPPORT TO THE NATION AND THE WORLD**

If USAMRIID is called to assist with a disease outbreak investigation or a threat to public health, our Diagnostic Systems Division and Emergency Operations Center (EOC) will surge to meet the demand. As part of the nation's Laboratory Response Network, USAMRIID would collaborate with CDC to rapidly characterize suspected pathogens. Our EOC can consult the right subject matter experts for the most challenging cases.

Whether the request comes from a Combatant Command or another Federal agency, USAMRIID stands ready to assist in any biological contingency.



## **ON THE HORIZON**

The new USAMRIID facility, adjacent to the existing Building 1425, is currently under construction. It will expand the Institute's capacity to test products developed by our partners in biodefense research; incorporate newer technologies for developing vaccines, drugs and diagnostics; and better accommodate our workforce, which has more than doubled since the program began.

USAMRIID is proud to be a founding member of the National Interagency Confederation for Biological Research, and will continue to support and collaborate with other agencies conducting research to benefit military and public health.



*For more information, please visit*

[www.usamriid.army.mil](http://www.usamriid.army.mil)