

On location:

## **NBACC - National Biodefense Analysis & Countermeasures Center - Facility to be completed by 2008 to research defense against bioterrorism**

Since the inception of the Department of Homeland Security (DHS), the National Biodefense Analysis and Countermeasures Center (NBACC) has developed the science critical to defend the nation against bioterrorism. The Department of Homeland Security's Science and Technology Directorate is proud to have NBACC as the first laboratory built for DHS—a national resource to understand the scientific basis of the risk posed by biological threats and to attribute their use in bioterror or biocrime events.

The President and Congress have charged NBACC with research and development of technologies to protect the American public from bioterrorism. In November 2002, Congress passed the Homeland Security Act in part to coordinate and advance homeland security research and development activities across the federal government. President Bush

issued government-wide directives on biodefense research and development in April 2004.

NBACC fills critical shortfalls in our scientific knowledge of the biological agents that could be used to cause harm to the American public. As we look to the future, our scientists are helping federal policy makers and leadership to answer critical questions for our nation's security. What new vaccines or therapies should be developed based on the risk posed by biological threats? Will existing countermeasures protect the public? What procedures can be employed to detect a planned or actual bioterror event and to identify the perpetrators of such events? How should the government prioritize biodefense research to ensure that countermeasures are in place and in sufficient quantities to respond to bioterror events?

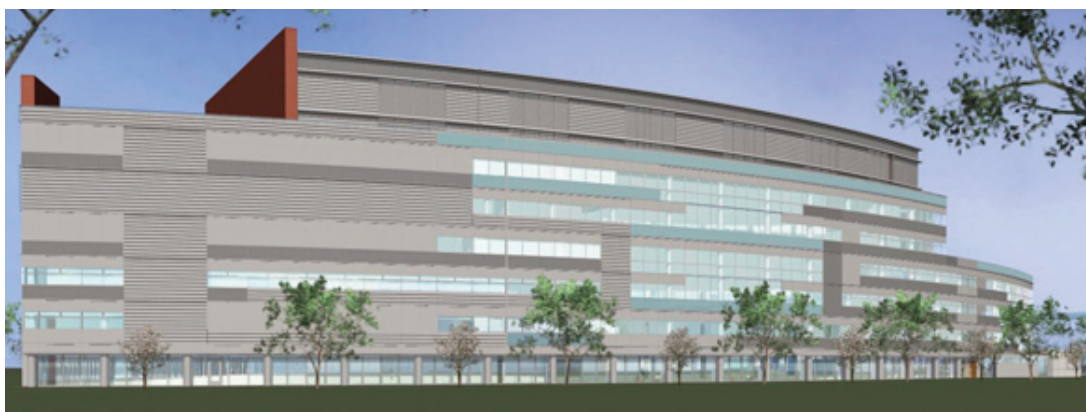
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This article is an excerpt from the U.S. Department of Homeland Security Student and Alumni Network Newsletter.

The Network serves students and alumni who are current and past recipients of DHS funding and participants in DHS Student Programs. This includes DHS Scholars and Fellows, Summer Faculty Research Team Program members, student researchers at the DHS Research and Education Centers, AAAS Fellows, and Post-doctoral Research Associates.

The value of the Network is in facilitating professional and social collaboration, as well as communicating DHS and homeland security-relevant news and events, and employment and funding opportunities.

Please visit the DHS Network at [www.DHSNetwork.org](http://www.DHSNetwork.org)



*Above: Artist's sketch of the National Biodefense Analysis and Countermeasures Center (NBACC), based in Fort Detrick, MD, to be completed in 2008.*

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To answer these questions NBACC is focused on developing the right science to identify perpetrators of biological events and to help guide the nation's investments in vaccines, drugs, detectors, and other countermeasures.

NBACC's National Bioforensic Analysis Center (NB-FAC) conducts bioforensic analysis of evidence from a bio-crime or terrorist attack to attain a "biological fingerprint" to identify perpetrators and determine the origin and method of attack. NBFAC is designated by Presidential Directive to be the lead federal facility to conduct and facilitate the technical forensic analysis and interpretation of materials recovered following a biological attack in support of the appropriate lead federal agency.

On January 12, 2007, NBFAC achieved ISO 17025 accreditation, the most rigorous international standard of testing and calibration by which a laboratory can be assessed. Through this achievement, NBFAC has established itself as a model for bioforensic laboratory practices.

NBACC's Biological Threat Characterization Center (BTCC) conducts studies and laboratory experiments to fill in information gaps to better understand current and future biological threats; to assess vulnerabilities and conduct risk assessments; and to determine potential impacts to guide the development of countermeasures such as detectors, drugs, vaccines, and decontamination technologies.

In January 2006, BTCC completed and delivered to the President, the Bioterrorism Risk Assessment, the nation's first comprehensive evaluation of the risks posed from bioterrorism threat agents. The BTCC also completed an all-inclusive literature review of animal modeling studies, to develop our scientific understanding of the impact of biological agents in humans.

The Science and Technology Directorate oversees the management of the NBACC as a federally funded research and development center. On December 20, 2006, DHS selected Battelle National Biodefense Institute to conduct scientific programs and operate the NBACC facility. Construction of the new facility is underway, with completion planned by 2008.

NBACC scientists and administrators collaborate with federal agencies in support of the nation's biodefense efforts. The research facility will be located within the National Interagency Biodefense Campus at Fort Detrick, Maryland. Collectively, NBACC works with campus partners in the U.S. Army, the Department of Health and Human Services, and the Agriculture Department toward complementary biodefense-related research. Collaborations with another Fort Detrick resident agency—the National Cancer Institute—occurs under the auspices of the National Interagency Confederation for Biological Research.

NBACC is proud to join its agency partners throughout the federal government in advancing science for homeland security. NBACC's research expands the nation's understanding of the scientific characteristics of biological agents and forensics analyses for government leadership to develop policies and to build technologies to protect the American public against bioterror events.

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