Big Bucks for Biosecurity Research—But Who's Doing What

Author: Menninger, Holly

Source: BioScience, 58(5) : 390

Published By: American Institute of Biological Sciences

URL: https://doi.org/10.1641/B580504

Big Bucks for Biosecurity Research—But Who's Doing What?

HOLLY MENNINGER

After 11 September 2001 and the anthrax attacks that followed, President Bush made it a government priority to protect human health and food systems from biological attack. Federal agencies have allocated billions of dollars to biological security programs and new research infrastructure across the governmental, academic, and private sectors. However, some government observers have questioned the leadership, coordination, and oversight of these activities, asking, "Are we more vulnerable to a biological attack today than we were in 2001?"

The responsibility to protect the welfare of people, plants, and animals is shared by various federal agencies. These include the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH); the Animal and Plant Health Inspection Service; the Department of Homeland Security (DHS); the Environmental Protection Agency; and the Department of Defense (DOD).

According to recent estimates from the Center for Biosecurity of the University of Pittsburgh Medical Center, the federal government has spent $40 billion for civilian biodefense since 2001. In 2007, more than $5 billion was allocated to biodefense. A significant portion of these resources has been used to build high-containment biosafety laboratories (BSLs), specifically BSL-3 and BSL-4 labs, where scientists study the most deadly and highly contagious diseases, including Ebola, smallpox, and avian influenza. The NIH has spent more than $1 billion for new lab construction since 2001. The DHS is moving forward with plans to build a $451 million National Bio- and Agro-Defense Facility to research biological threats and countermeasures involving zoonotic diseases—those that may be transmitted from animals to humans—and foreign animal diseases. Construction is nearly complete on the DHS's National Biodefense Analysis and Countermeasures Center at Fort Detrick, Maryland, on a National Interagency Biodefense Campus that has lab facilities operated by the CDC, NIH, US Department of Agriculture (USDA), and DOD.

The existence of the National Interagency Biodefense Campus suggests that the federal government recognizes the importance of scientific collaboration, coordination, and communication in addressing issues of biosecurity. Yet according to fiscal year 2009 DHS budget documents, "A comprehensive understanding of how biodefense initiatives are coordinated at various levels of government and the private sector does not exist."

Evidence pointing toward inadequate oversight amid expansive growth in the number of biosafety research laboratories emerged during an October 2007 hearing of the House Subcommittee on Oversight and Investigations. Keith Rhodes of the Government Accountability Office (GAO) testified that no one agency is responsible for tracking the rapidly growing number of high-containment labs (BSL-3 and BSL-4) in the academic, state, and private sectors. In fact, the GAO review revealed that even the number of BSL-3 labs—where work is done on biological agents such as anthrax and West Nile virus—remains unknown.

Whatever the number, it is growing, and as the number of laboratories grows, the number of individuals handling dangerous biological agents grows as well, as does the potential for accidents. Unchecked expansion of laboratories with little federal oversight is a recipe for disaster, contended Edward Hammond of the Sunshine Project, a now defunct nongovernmental watchdog organization. He warned Congress that "the most likely source of a bioterrorist event in the US is a US biodefense lab."

In light of these concerns, the NIH initiated a Trans-Federal Task Force on Optimizing Biosafety Oversight. The task force, cochaired by the Department of Health and Human Services and USDA, includes representatives from the agencies responsible for managing biosafety risks. According to Mary Groesch, senior adviser for science policy in the Office of the Director at the NIH, the group is working quickly to identify gaps in current biosafety oversight, lay out potential options for addressing these issues, and develop recommendations for department leadership. Strategies under consideration include the development of mandatory federal biosafety standards and the centralization of federal biosafety authority.

"The time is ripe for something to be done," says Gigi Kwik Gronvall, senior associate at the Center for Biosecurity. "Biosafety failures have been more evident in the media, and this area has lots of eyes on it. If recommendations from the task force are reasonable, nothing should block action from being taken."

Gronvall emphasizes that one must remember that the greatest danger is for the people working with the pathogens. Centralizing oversight and authority in one office may help get more resources dedicated to improving biosafety, she said. "It is more important that recommendations take a bottom-up approach, focusing more on the people and the lab safety officers who directly oversee the work."

Holly Menninger (e-mail: hmenninger@aibs.org) is with the AIBS Public Policy Office. Josh Smith, a graduate student policy fellow sponsored by the American Society of Mammalogists, contributed to this report.

doi:10.1641/B580504
Include this information when citing this material.