

COUNTERTERRORISM

U.S. Enlists Researchers as Fight Widens Against Bioterrorism

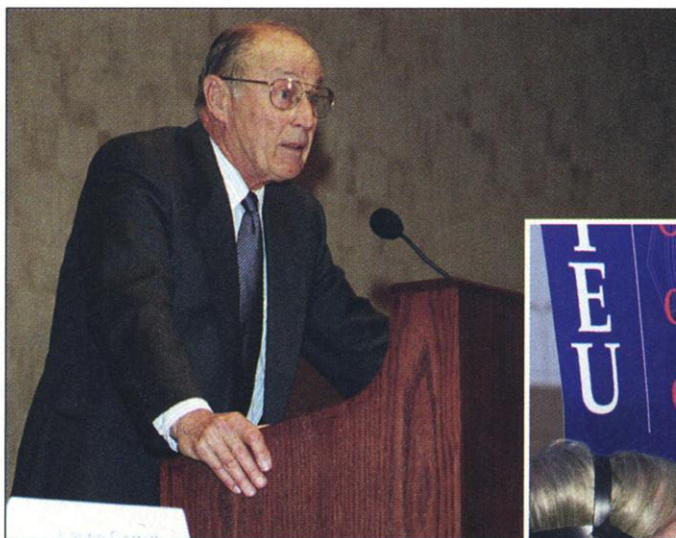
The threat of bioterrorism—which became real this fall—has prompted a flurry of reactions from the U.S. government in a rapidly expanding war against an unknown attacker. Last week, as the number of new anthrax cases in the United States showed signs of tailing off, some of those responses reached deep into the scientific community.

In an intense effort to track down the source of the attacks, the FBI stepped up a probe of research labs across the country, and in an attempt to improve responses to any future attacks, the Bush Administration recalled two prominent researchers to Washington to help orchestrate government biodefense programs. Congress also began discussing a spate of bills that could have significant implications for scientists. And on the international front, the U.S. government adopted a new negotiating position on a biowarfare treaty.

Investigations and security. FBI agents have been working for the past month in a probe of U.S. research labs. The objective: to learn whether anthrax spores used in recent attacks could have come from the United States and whether other research organisms might be used as weapons. Some 250 laboratories are registered to handle dangerous organisms, and dozens have been contacted by the FBI. “We’re pressing hard to determine” which labs have handled anthrax, Jim Reynolds, a top antiterrorism official at the Justice Department, told a Senate hearing this week. Among those that were asked questions are Louisiana State University in Baton Rouge, the Southwest Foundation for Biomedical Research in San Antonio, Texas, and Brookhaven National Laboratory in Upton, New York. These inquiries, including subpoenas from a Florida

grand jury, request lists of employees, descriptions of the strains at the facility, and other details (see next page).

Although the FBI has cast a wide net, its approach appears to have been uneven. Some researchers who work with live anthrax bacteria said this week that they had not been contacted, whereas others who use only small pieces of anthrax DNA (which are not infectious) said that they had been called. In the meantime, many universities are taking inventories of their stock of dangerous organ-



Front lines. Army vaccine expert Philip Russell (above) is called into service as postal workers rally over job safety.

isms. This task is daunting because microbiologists are scientific pack rats: Researchers “collect strains like schoolboys collect sports cards,” says Louisiana anthrax expert Martin Hugh-Jones.

That fact has energized Congress, which is moving quickly to pass legislation that would require researchers to beef up lab security and register all collections of potential bioweapons with the Centers for Disease Control and Prevention (CDC) in Atlanta. But science and university groups have worked to try to fine-tune proposals, such as one introduced last week by Senator Diane

Feinstein (D-CA) that would also require the registration of all lab equipment that might be used to manufacture bioweapons. “They don’t understand what they are asking,” says one academic lobbyist. “That would mean registering virtually every piece of glassware.” A comprehensive bioterrorism bill to be introduced this week by Senator Edward Kennedy (D-MA) is expected to narrow that requirement.

To reduce the risk that another deadly organism might get into hostile hands, the two facilities designated as official repositories of the smallpox virus have already increased their security. Neither one—CDC and VEKTOR in Koltsovo, Russia—offered details. But some measures were obvious: CDC’s sprawling campus, for example, is now surrounded by concrete barriers to thwart truck attacks.

According to one researcher who asked not to be identified, the CDC’s smallpox stocks have been secure for a long time. “There are now several more layers to prevent someone from getting to them,” the researcher says. “An outsider would get lost in the labyrinth.”

The director general of VEKTOR, Lev Sandakhchiev, adds that his staff has made “major physical security improvements” in the past 2 years. But the “horrendous” recent terrorist attacks were “a wake-up call for everybody in the world,” he says. “We checked through our security system again.”

New czars. To help coordinate the response to bioterrorism, Health and Human Services (HHS) Secretary Tommy Thompson recruited

two decorated warriors back to government service this week. HHS announced on 1 November that Donald A. Henderson, former director of the World Health Organization’s program to eradicate smallpox, will head HHS’s new Office of Public Health Preparedness. In addition, retired Maj. Gen. Philip Russell, who once ran the Walter Reed Army Institute of Research, will join HHS as a special adviser on vaccine devel-



CREDITS: (LEFT TO RIGHT) BOB PEAVY; AP PHOTO/JOE MARQUETTE

Shaking up the space station

Anthrax testing not as easy as 1-2-3



Big success with breeding

opment and production.

Henderson, who has previously worked both as deputy assistant secretary of HHS and as associate director of the White House's Office of Science and Technology Policy, is leaving his job as director of the Johns Hopkins Center for Civilian Biodefense Studies in Baltimore, Maryland. "If you asked who is a giant in the field of bioterrorism as a scientist, who has incredible credibility in the community, there's D. A. Henderson, and then there's no number two," says John Bartlett, chief of infectious diseases at Johns Hopkins School of Medicine. "He's a tour de force in the fields of

ment ownership or sponsorship" of a vaccine lab is "the only reasonable answer." And the governing council of the Institute of Medicine, chaired by IOM president Kenneth Shine, concluded on 5 November that a "National Vaccine Authority" is "long overdue."

Industry officials have been in close talks with HHS about these ideas for the past 2 weeks, says Jeffrey Trewhitt, spokesperson for Pharmaceutical Research and

Manufacturers of America in Washington, D.C. The company executives think they can fulfill the government's needs without a vaccine agency, Trewhitt says: "Let's set the goals and see what they can do; they believe they can meet the goals" faster than a federal agency can. Carl Feldbaum, president of the Biotechnology Industry Organization in

Washington, D.C., also says he's telling federal officials that U.S. companies can make vaccines faster than the government can. "It's doable," he says, if the industry can have a long-term financial commitment and protection from antitrust actions and

kicking around the United Nations for years, but U.S. support may put it over the top.

Overall, however, observers are unimpressed with other U.S. proposals, including one to devise a "code of ethical conduct" for bioscientists. "The [Bush] Administration is still in a state of denial," contends a British bioweapons analyst. One way to mend the rift with other countries, says a U.S. Defense Department official, would be for the government to accept "tempered criticism" at the Geneva conference and then quietly resume negotiations on how to comply with the treaty.

—ELIOT MARSHALL

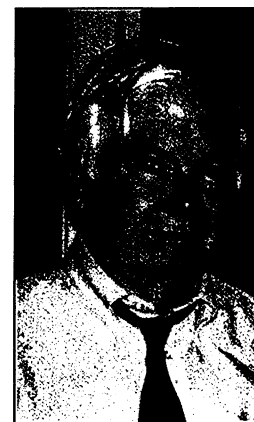
With reporting by Jon Cohen, Martin Enserink, Joshua Gewolb, David Malakoff, and Richard Stone.

SCIENCE POLICY

Peer-Review Critic Gets NIH 'Rejects'

Two years ago, Stanford University postdoctoral researcher Michael Vagell asked the National Institutes of Health (NIH) for a grant to study how hormones affect the brain. Like about 70% of all grant applications, it was rejected. Normally, Vagell's fate would have remained a secret, because NIH publicizes only the names of grant winners. Last month, however, NIH complied with a court order and reluctantly handed over a list of unfunded applicants to a long-time critic of its peer-review practices.

NIH officials say that the public release of the names and addresses violates the privacy of applicants and could hurt the careers of young scientists like Vagell. But the man who won the list, retired entrepreneur George Kurzon of Portsmouth, New Hampshire, says that employers, tenure committees, and colleagues "already know"



Show and tell. George Kurzon wants to publicize ideas that didn't make it at NIH.

who isn't winning grants. Left in the dark, however, says Kurzon, are those who could make a real difference: foundations, investors, and others who might fund ideas that NIH ei-

United States District Court
SOUTHEAST DISTRICT OF FLORIDA

TO: Comptroller of Patents

SUBPOENA TO TESTIFY
BEFORE GRAND JURY
FOR RECEIPT OF FILES

INVESTIGATION FOR:
1. PERSON A. DOCUMENTS OR OBJECTS

YOU ARE HEREBY COMMANDED to appear and testify before the Grand Jury of the United States District Court at the place, date and time specified below.

PLACE: United States District Courtroom
221 Commerce Street
Miami, Florida 33131

DATE: 11/13/01
TIME: 10:00 AM

YOU ARE ALSO COMMANDED to bring with you the following documents or objects:

SEE ATTACHMENT

In the event of noncompliance with this subpoena, the Grand Jury may recommend to the United States District Court that you be held in contempt of court.

ATTACHMENT

Please provide, for the period from January 1, 2000, through the date of this subpoena, any and all information relating to the handling, and/or storage, and/or transfer of Bacillus Anthracis (Anthrax), including, but not limited to:

1. The name/type of the strain or strains of Anthrax which is or has been maintained in your laboratories.
2. Lists (or personnel records) of any and all persons, whether permanently or temporarily employed, including visiting researchers and students, with access to laboratories or other locations where Anthrax is stored, studied, transferred, or otherwise handled. Including the name, social security number, and date of birth of such persons, their positions and/or job descriptions, their present address, and any access code which might have been used by them;
3. Entry and exit records, whether electronic or manual, to all areas where Anthrax is stored or handled;
4. Procedure manuals or other written documentation, rules, or guidelines provided to employees, visiting researchers, or others regarding the handling of Anthrax;
5. Records related to the transfer of Anthrax to or from your facility including any requests for Anthrax which are pending or which were declined.

Tough questions. Academic researchers have received government subpoenas seeking information on their anthrax stocks.

both science and public health." Whereas Henderson will orchestrate the many branches of HHS that deal with bioterrorism, insiders say that Russell will have a more defined main task: to speed the development of a new anthrax vaccine.

The failure of U.S. producers to maintain a viable stockpile of anthrax vaccine for civilians has been an acute embarrassment for the government. The contractor hired by the Department of Defense to produce a vaccine for the Pentagon has been closed down for repairs since 1998 (*Science*, 19 October, p. 498). Two prominent groups have now urged Congress to resolve the impasse by authorizing a new, government-owned, contractor-operated facility dedicated to the manufacture of critical vaccines. A panel chaired by retiring Virginia Governor James Gilmore told Congress last week that "direct govern-

ment ownership or sponsorship" of a vaccine

Treaty movement. There's a possibility that the anthrax scare could kick-start stalled talks on measures to beef up compliance to the Biological and Toxin Weapons Convention (BWC). Talks on a BWC protocol broke down last summer, when the U.S. delegation pulled out of negotiations due to concerns that enforcement measures—such as lab inspections—might compromise national security and threaten biotech companies (*Science*, 20 July, p. 414). Keeping a promise to come up with alternative approaches for a 19 November review conference in Geneva, President George W. Bush last week floated several ideas for strengthening the convention. The most compelling U.S. proposal, experts say, is one to allow nations to extradite for prosecution those who mishandle biotoxins. The idea has been