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COUNTERTERRORISM:

U.S. Science Agencies Begin to Lend a Hand

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The U.S. government last week took the first steps toward developing a coordinated scientific effort to combat terrorism. Despite an official blackout on the event, Science has learned that White House science adviser Jack Marburger called together the Bush Administration's top scientists on 19 October to discuss how their research programs can contribute to the antiterrorism campaign. At the same time, the National Academy of Sciences (NAS) has begun its own effort to shape government research plans in the wake of 11 September and the continuing anthrax attacks.

The White House meeting marked the first time that research managers from across the government gathered en masse to take stock and begin shaping a coordinated response. The federal mobilization has been hampered by the unofficial status of the government's top scientist: Marburger hadn't been confirmed by the full Senate at the time of the meeting, although lawmakers were expected to approve his appointment this week.

Many government science agencies did swing into action within hours of the assaults, but until now, there has been little coordination or long-term planning. The Department of Energy's (DOE's) national laboratories have loaned experts in biological and chemical weapons to intelligence and investigation agencies, for instance, and the National Science Foundation (NSF) has funded several shoebox-sized experimental robots that searched for survivors and remains in the wreckage of the World Trade Center in New York City.

The lengthy White House meeting attracted more than a dozen federal officials who oversee the nation's \$90 billion R&D portfolio, according to several participants. It focused primarily on briefing Marburger and his staff at the Office of Science and Technology Policy (OSTP) on the strengths and weaknesses of relevant research programs. OSTP would not comment on the meeting, citing Marburger's status as a consultant, but an aide to one participant said that officials "laid out what they thought they could offer and where they might need some help."

Some agencies have already spent weeks combing their portfolios for projects germane to the nation's defense. At the DOE's National Nuclear Security Administration, chief scientist Maureen McCarthy has asked the department's 17 national laboratories to "compile a list of their top five or 10 areas of expertise." If the labs can't "respond to this war on terrorism, we probably shouldn't be in business," she says, adding that the attacks have given the labs "a unifying sense of mission" unseen since the end of the Cold War.

At the National Institutes of Health, the National Institute of Allergy and Infectious Diseases is "accelerating" work on smallpox vaccines and drugs, says director Anthony Fauci (Science, 19 October, p. 498). It is launching studies to see if a five- or 10-fold

dilution of the country's limited supply of smallpox vaccine would still raise a robust immune response. The institute has also ramped up efforts to test a new anthrax vaccine in clinical trials. "We have a meeting every morning on these issues," says Fauci.

NSF officials are already seeing the preliminary results of some of nearly two dozen grants of \$15,000 to \$40,000 each the agency made soon after the 11 September attacks. Video of a University of South Florida robot probing the smoking Trade Center ruins, for instance, was featured at the 11 October meeting of the National Science Board, which oversees the agency.

NSF-funded engineering studies of the Trade Center collapses, including steel analysis conducted by Abolhassan Astaneh-Asl and colleagues at the University of California, Berkeley, will be discussed at a mid-December workshop in New York City. And this week, Tom Smith and Ken Rasinski of the University of Chicago's National Opinion Research Center released the preliminary results of an agency-funded, nationwide psychological survey that compared how Americans responded to the 11 September attacks and the 1963 assassination of President John F. Kennedy. In general, the survey of 2100 people found that people were angrier, but less psychologically shaken, by the terrorist assaults than by the president's death.

Deciding where such studies might fit into a comprehensive antiterrorism research agenda will be the job of an NAS task force expected to issue its first findings by next March. NAS officials expect to recruit up to 20 panelists for the study, to be led by biologist Richard Klausner, former head of the National Cancer Institute, and Lewis Branscomb, a science policy expert at Harvard University. **The effort is expected to become a major conduit for advice from the academic community to the White House on how scientists might contribute to the global battle against terror.**

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