minimize the risk, the team used a weakened anthrax strain, but for microbiologists who know the literature, Keim says, producing a virulent Cipro-resistant anthrax might be feasible. Keim's team is not going to add to that literature, at least for now. "We have a paper ready to go," says Keim, "but I think I'm going to sit on it."

Meanwhile, two papers published online by *Nature* this week record progress in battling *B. anthracis* on another front. Although antibiotics readily kill the bacteria, patients with inhalation anthrax often succumb to bacterial toxins circulating in their blood (*Science*, 19 October, p. 490). In one study, researchers at Harvard University and the University of Wisconsin, Madison, report finding a receptor that the toxin uses to enter macrophages, the cells it kills. A soluble version of the receptor added to macrophages grown in a test tube could bind the toxin and prevent its entry into the cells—thus offering hope of a drug that could "mop up" the toxin.

In the second paper, researchers from six institutions in the United Kingdom and the United States announce having solved the three-dimensional structure of a component of the toxin called the lethal factor. The structure may give researchers new leads to block its main effect: killing patients in the advanced stage of anthrax. **–MARTIN ENSERINK**

COUNTERTERRORISM

U.S. Science Agencies Begin to Lend a Hand

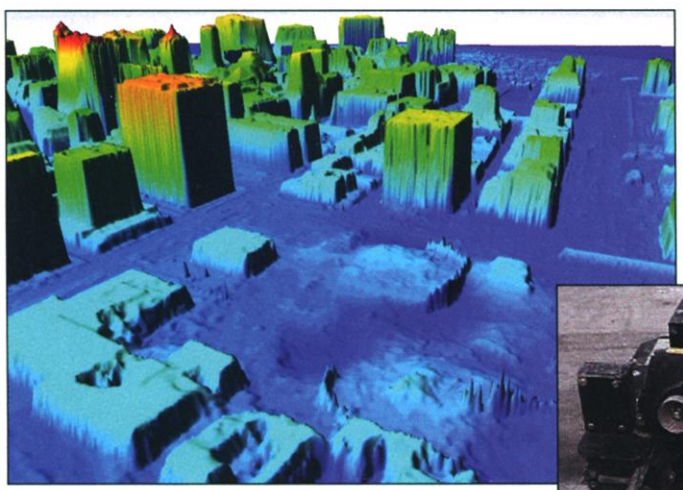
The U.S. government last week took the first steps toward developing a coordinated scientific effort to combat terrorism. Despite an official blackout on the event, *Science* has learned that White House science adviser Jack Marburger called together the Bush Administration's top scientists on 19 October 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.

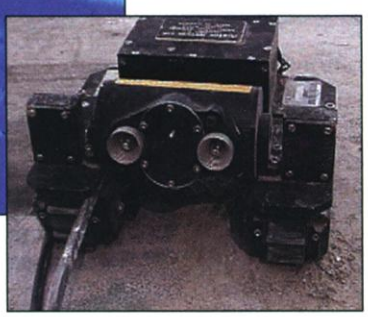
The White House meeting marked the first time that research managers from across the government gathered en masse to take stock and begin shaping a coordinated response. The federal mobilization has been hampered by the unofficial status of the government's top scientist: Marburger hadn't been confirmed 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





CREDITS: (LEFT TO RIGHT) AP PHOTO/KENNETH LAMBERT; GEOSENSING SYSTEMS ENGINEERING/UNIVERSITY OF FLORIDA

Rapid response. Scientists used NSF quick grants to develop a three-dimensional laser map of damage at the World Trade Center site and deploy robots to search the wreckage.

ScienceScope

Research or Proliferation? Science and university groups are keeping a close eye on antiterrorism legislation that could hamper research involving biological and chemical toxins. Earlier this month, the American Society for Microbiology and the Association of American Universities, which represents 63 top research universities, successfully lobbied the Senate to exempt "bona fide research" from stiff criminal penalties for possession of potential bioweapons. A version of the bill passed by the House of Representatives, however, doesn't deal with bioweapons, and it's not clear whether such a provision will be included in the final bill, expected to be completed soon.

Meanwhile, science advocates are also tracking a proposal (HR 3016) by Representative Billy Tauzin (R–LA) to bar non-U.S. citizens who are not permanent residents from possessing potential bioweapons. They say the bill would prevent many foreign-born students and researchers from working in the field. They are also awaiting a separate set of bioterror prevention proposals from the Department of Health and Human Services, due next month.

Science Stimulus Some science lobbyists are asking Congress to spend money on new university lab equipment as part of a larger legislative effort to revive the economy. Science groups have proposed including up to $2 billion for such purchases in a $100 billion economic stimulus package that is whizzing through Congress.

A science tool-buying spree would pack a triple punch, says American Physical Society lobbyist Michael Lubell, one of the authors of the idea. It would give struggling computer and equipment makers an immediate cash infusion, help university researchers make discoveries that will produce future economic returns, and reduce a hefty backlog of equipment-funding requests. The National Science Foundation alone, he says, leaves $1 billion in equipment pleas on the table each year.

It's not clear if lawmakers will bite, however. Republican leaders have argued that the package should emphasize tax cuts, whereas Democrats favor spending on an array of public works projects.

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.

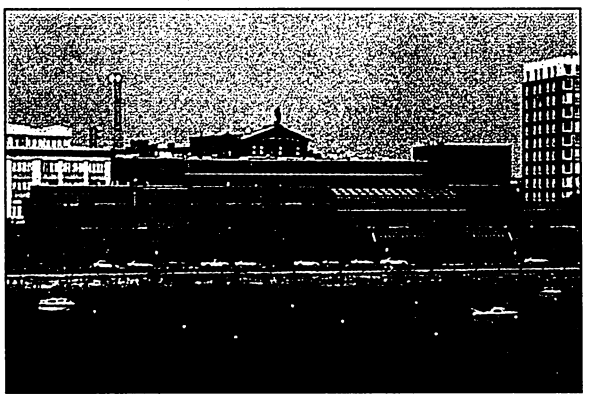
–DAVID MALAKOFF AND ROBERT KOENIG

With reporting by Jocelyn Kaiser.

UNIVERSITIES

Family Moves to Give Institute to Harvard

BOSTON—A small but prestigious institute on the banks of the Charles River, the legacy of Polaroid founder Edwin Land, may soon become part of Harvard University. The Land family has offered the Rowland Institute for Science in Cambridge, Massachusetts, to the university as a gift, according to several sources familiar with the negotiations. If the deal pans out, the institute —and its endowment—will be incorporated into Harvard's arts and sciences program. The offer is a coup for the university, given its severe shortage of space and the prime location of the institute just a few kilometers from the main campus. But the change could spell the demise of the institute's novel line of basic research.



Harvard bound? Researchers worry that the unique Rowland Institute will lose its identity if it is transferred to Harvard.

Land, inventor of instant photography, set up the institute in 1980 to conduct a wide range of basic research in physics, chemistry, and biology. Rowland has an annual budget of $7.5 million, more than two dozen researchers, and an endowment between $50 million and $100 million, according to Michael Burns, the institute's research director. Housed in a 10,000-square-meter building, the institute employs about 70 people. Sources close to the talks say that members of the Land family—who declined to discuss the issue—have decided the institute is too expensive to maintain.

The proposed merger is "an imaginative concept from the Rowland, which has an impressive history of fostering new cross-disciplinary research," says Jeremy Knowles, dean of Harvard's faculty of arts and sciences. Knowles adds that the merger could strengthen the Rowland Institute while providing "new opportunities for scientific research and teaching at Harvard." But the fate of Rowland's researchers and their work is unclear. "We have absolutely no idea what's going on," says institute microbiologist Diane Schaak. "We're not very happy, and we worry about the big machinery of Harvard taking over."

A team of Harvard researchers recently reviewed the institute. The Rowland scientists "are eclectic and interested in high-risk and high-return research," says Harvard biologist Markus Meister, who participated. The team recently submitted a paper to Knowles on the institute's future should Harvard assume control. One suggestion was to convert it to the neuroscience center now in the planning stage (*Science*, 24 August, p. 1419). Meister, who declined to discuss the report in detail, concedes that the Charles River facility "is not the ideal location," as the goal of the neuroscience center is to encourage interdisciplinary work among Harvard departments.

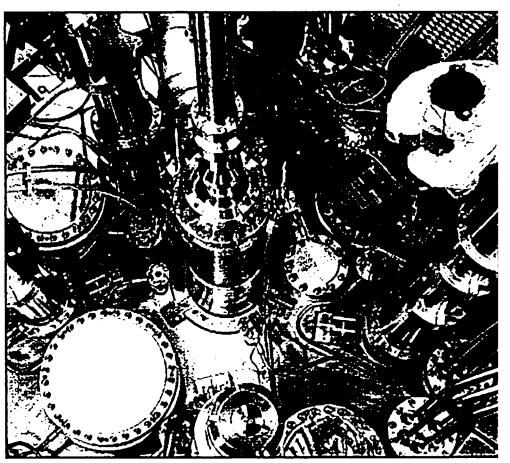
The Land family is reportedly eager to complete the deal soon, and Knowles says that both sides will work on the details in the coming weeks. As for the Rowland researchers, "we all have our CVs ready," says Schaak.

–ANDREW LAWLER

NEUTRON SOURCES

Compromise Lifts Hopes For German Reactor

BERLIN—A reactor designed to produce neutrons for research cleared a political log-jam this week and moved one step closer to beginning operations. Feuding politicians said they had reached a compromise that could allow researchers to power up the FRM-II facility in Garching, outside Munich, although it will likely be several months before studies can begin. The com-



Ready to go. The long-delayed FRM-II reactor may finally get the green light.

CREDITS: (TOP TO BOTTOM) ROWLAND INSTITUTE FOR SCIENCE; FRM-II