

# Living Terror Part 1: Deadly laboratories

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WASHINGTON, July 1 (UPI) -- President George W. Bush's \$2.5 billion plan to build laboratories across America to study deadly biological weapons has run into trouble with citizens in many parts of the country, evoking fears of spreading disease, attracting terrorist attacks and turning residential neighborhoods into government security zones.

In a two-month investigation, United Press International found roughly 20 existing high-level biodefense labs and proposals or plans to double that number through new construction and upgrades. These new facilities -- many of them to be located in densely populated cities, on college campuses and residential neighborhoods -- would study some of the world's most dangerous pathogens.

"We have a need for a tremendous amount of capacity," said Dr. Maureen McCarthy, acting director for the Office of Research and Development for the Science and Technology Directorate within the Department of Homeland Security. She said the recently adopted model for testing vaccines requires results in two types of animals. As a result of this, and the greater push to find countermeasures for bioweapons, the nation needs more and larger laboratories.

Citizens and political action groups charge, however, that secrecy shrouds many of the projects and it has been difficult to find out what pathogens will be studied and whether the danger to humans and the environment around the laboratories has been fully considered.

In Davis, Calif., the city council refused to approve the biodefense lab plans of the University of California, saying bringing such a lab to the town was too divisive. Citizen groups said the lab would bring deadly pathogens to Davis and they questioned safety measures. They asserted the facility would make the town a target for terrorists and bring national security restrictions to a campus with 22,000 undergraduates.

Just as university officials were trying to reassure the townspeople no deadly microbes would be let loose, a monkey escaped from the primate center that would supply test animals for the lab's experiments. The monkey has never been found and the incident heightened fear lab safety measures could be breached.

Some 3,000 miles from Davis, the Boston University Medical Center is seeking federal grants to build a major biodefense laboratory in Boston's densely populated and racially charged South End. Opposition groups contend people in the neighborhood have not been given a full picture of the lab's dangers.

On Long Island, N.Y., public citizens groups sharply oppose plans for defense research into biological weapons on Plum Island, a government facility 1.5 miles offshore of their communities and near Boston and New York.

The two Democratic New York senators, Hillary Clinton and Charles Schumer, have moved to stop the Homeland Security Department from upgrading the lab so diseases such as highly contagious, untreatable hemorrhagic fevers cannot be studied there. Homeland officials told Clinton the lab will not be upgraded to the highest level of containment, but area groups are still opposed to bioterrorism experiments there.

The Department of Energy is planning to build a biological defense lab at its Lawrence Livermore nuclear weapons facility despite the fact it would be located near San Francisco -- in a well-known earthquake area -- with 7 million people living within a 50-mile radius. The Livermore lab has also been under severe criticism for security breaches, raising concerns about the safety of any new facility.

In Hamilton, Mont., citizens groups claim a National Institute of Health plan to build a biodefense lab there has been rushed without sufficient consideration of how to deal with a major disease outbreak or environmental damage. NIH has just completed a new environmental impact statement and more public hearings are planned.

The Utah State University at Logan backed off a plan to seek federal money to build a top security biodefense lab after meeting public resistance. Secret government chemical and

biological warfare testing always has been sensitive in Utah, where the Army has maintained its main testing center for those weapons at the Dugway Proving Ground. Opposition from citizens, the state government and its congressional delegation prevented the Army from developing the same type of lab at Dugway in 1985.

In the weeks after the terrorist attacks and anthrax deaths in New York, Washington and Florida in the fall of 2001, there were few limits on what the Bush administration and Congress were willing to do to fight terrorism. They reached for the ultimate weapon of the United States Government -- money -- proposing \$10.6 billion for bioterrorism defense research, vaccines and treatments.

The Bush Administration also gave the departments of Defense, Energy, Agriculture and Health and Human Services which includes the Centers for Disease Control and Prevention, the Environmental Protection Agency, and later the Department of Homeland Security, money to build or upgrade biodefense labs.

To date, the federal government has not published a list of biodefense labs either existing or proposed. The Sunshine Project, a private arms control research center located in Austin, Texas and Hamburg Germany, said there are plans to build or upgrade some 35 high-security biodefense laboratories around the country. UPI identified some 20 existing biodefense labs and found proposals or plans to build or upgrade roughly another 20. Though some planned labs are on military bases and in remote areas, many are being considered at universities and hospitals located near or in the center of dense urban areas.

Lab safety is measured by the ability to contain deadly microbes. These labs would operate at the highest of four grades: Biosafety Level 3 or Biosafety Level 4. The Biosafety Level 4 labs, like the one planned for Davis, will be conducting research on such deadly diseases as Marburg, Ebola, and Lassa, for which there are no known cures and little public knowledge in the United States.

Marburg, a hemorrhagic fever, was described a few years ago in the book, "The Hot Zone," by Richard Preston, as a complete disintegration of the body's system ending with unquenchable hemorrhaging of blood and fluid through almost every orifice.

The key role of these research laboratories is to produce small quantities of deadly biological pathogens, and use the agent to try to find vaccines or antidotes to their effects. In the course of this research, tens of thousands of animals, including non-human primates, will be given the diseases to study their effects. No animal will survive these tests. The care, security and safe disposal of the animals and their remains are major safety problems.

Though these high-safety-level research labs would likely assist in analyzing bioagents during a terrorist attack, that is not their focus. There is a separate, billion-dollar effort underway through the Department of Health and Human Services to develop a network of mostly lower-level labs to test samples during an attack.

More research and new labs are necessary, said experts, because the introduction of modern biotechnology over the past 25 years has potentially made biological weapons vastly more dangerous. Pathogens can be genetically engineered to be more stable, more virulent, more resistant to treatment and more difficult to detect.

The work in these laboratories is exceedingly dangerous to the scientists and potentially deadly to vast numbers of the population if the microbes were to get to the outside. Since most of the most lethal potential agents can be distributed through the air, the main approach to safety is preventing the germs and viruses from leaking out of the secure containers and rooms where scientists work with them.

Consistently in interviews with UPI, citizens in such diverse locations as Davis, Boston, Livermore, Hamilton, Long Island and Portland, Ore., said they were convinced the full dangers of the laboratories were not being made public.

But the public is not likely to be given much more information -- even if there is a deadly leak at the lab down the street.

The law that helped set the entire lab expansion in motion -- the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 -- makes it illegal for a federal agency to reveal information about who has materials or what they are doing with them. Officials could not tell the citizens of Davis whether Marburg is being studied at the lab. This type of information has

been specifically exempted from the Freedom of Information Act and anyone who releases such information is subject to fines of up to a quarter of a million dollars.

It is not just basic information being restricted. Also banned from release is information on security problems including the loss or theft of materials. Most important, no information is to be made available about the "release of a listed agent or toxin."

If dangerous materials were to leak from the lab or an infected animal escape, local residents -- by law -- may never be told.

Proponents of the labs told UPI that communities' fears are overblown. "We've built these laboratories in ways that they can be operated safely," said Ron Atlas, president of the American Society for Microbiology. "Is anything absolutely failsafe? Probably not. Do we have an excellent system of redundancy and safety? Yes. Do I think that Davis or other communities are at risk by having them? No. I think these are safe facilities."

One of the first proposals for funds to build a major, \$200 million biological defense laboratory came from the University of California at Davis, one of the state's premier universities and research schools with nearly 30,000 students and 17,000 employees.

From many angles, UC Davis, as it is called locally, would have seemed a perfect candidate. The provost of the university, Dr. Virginia Hinshaw, is a virologist, a doctor who concentrates on viruses, and many of the world's most dangerous potential bioterrorism weapons are viruses. She is listed as the primary "investigator," the doctor that would take charge of the NIH funded projects.

UC Davis also maintains a major primate center, with 4,279 apes, chimpanzees and monkeys, which are the primary test animals for the final stages of biodefense-related research.

According to a university spokesperson, Pat Bailey, the idea to bid for the giant lab grew out of a request from the California Department of Public Health, several years before the Sept. 11, 2001, terrorist attacks, to build a BSL 4 lab. The state has several BSL 3 labs, which could handle most bioterror weapons, but was seeking a facility able to handle exotic diseases like Ebola and other hemorrhagic fevers.

At first the university seemed to be getting support for the lab. Mayor Susan Boyd joined a university group visiting a similar laboratory in downtown Winnipeg, Canada (incidentally the only BSL 4 in Canada) and the city council voted its support.

But Samantha McCarthy, leader of a local activist group, told UPI that despite appearing to be open with the people of Davis, a 5,000-person town that abuts the university, school officials rushed public meetings and held back pertinent documents that would have made clear the dangers of such a lab.

When the university made public its application in February, it almost immediately ran into vocal and forceful resistance from faculty members, activist groups and the people of Davis. The biggest issue was safety.

"UCD spokespersons represent the lab as 'safe,'" wrote Susan Mann, a history professor in a petition on behalf of faculty, "We would argue that it is not."

Mann said that the faculty members "do not doubt that the technologies and practices employed in the lab would be the most effective known to science at this date. We would be poor scholars of American history, however, if we did not heed the legacy of leaks, spills, fires, explosions, mismanagement, and accidents associated with UC's own Livermore and Los Alamos laboratories."

The University of California operates both the Livermore and Los Alamos National Laboratories, which handle top-secret research on nuclear weapons. A Department of Energy Inspector General's report released at almost the same time the application for the Davis laboratory went to Washington charged that \$1 million in equipment has been missing at Los Alamos, including 365 computers, and there were \$4.9 million in questionable employee credit card expenditures including charges for a Ford Mustang car and casino gambling expenditures.

UC Davis tried to distance itself from these problems, but citizen groups found it had filed an application for one of the "Research Centers of Excellence," which names Lawrence Livermore as a partner in bioterrorism research. The "Centers of Excellence" are groupings of researchers and institutions in 10 different regions of the country that will take on specific biodefense research projects.

Just as the debate over leaks and safety was heating up, a 2-year-old female Rhesus macaque monkey about 20 inches high and weighing 4.4 pounds escaped from UC Davis's primate center. The primate center is where the test animals would come from for the lab and one of the things that recommended Davis to NIH. But if a monkey who had been given a deadly disease escaped, it could spread the pathogen to animals and humans. Bailey said the monkey was scheduled for the breeding center and had been certified as having no diseases; nevertheless, the animal has never been found. Bailey claimed that, though monkeys go missing in the center several times a year, this is the first one in 40 years that got off the premises. It is presumed to have died in a sewer outlet.

Another professor, Miriam Wells, of the Department of Human and Community Development, sharply challenged the university's assertion that the work at the lab would be controlled by the university and bioterrorism research would be but a sidelight.

In a detailed point-by-point review of NIH and university documents, Wells concluded "it is almost certain that classified research would be conducted at this national biocontainment laboratory. The nature of university policy, the stated purpose and governance structure of the lab, the exigencies of operational funding, NIH's planned collaboration with the Department of Defense and our direct communication with NIH, all point to the likelihood of classified research."

The nature of what the lab would be used for concerned many faculty members "greatly."

"While limits on public knowledge may be necessary to combat bioterrorism, they are incompatible with the spirit of open intellectual exchange on which a public institution of higher education such as UCD is based," Wells wrote.

By late February, public support for the lab in Davis had largely disappeared and on the 26th the members of the City Council voted to reverse their original support and send a letter to Hinshaw over the signature of the mayor, Susan Boyd.

"Many of our citizens are deeply concerned about potential negative consequences of the facility on the UC Davis campus. These concerns include, but are not limited to those of health and safety issues," wrote Boyd. The town could not support the application, the letter said because the matter had become too divisive.

The site chosen by UC Davis is on the campus, not in Davis, so the university does not need the town's permission to continue. The loss of the town's support, however, was politically devastating.

McCarthy said that she believed real estate people in the Davis area became worried the publicity about the danger of becoming a terrorist target or facing a bioweapon leak would stop people from settling in this growing residential community.

In early May, as if to bear this out, the Davis Chamber of Commerce and the Davis City Council received two mysterious letters postmarked Brazil with what police called "unknown particles" in them. The FBI tested the particles and found nothing harmful. It is investigating the incident.

But McCarthy blamed it on the lab project. "Here is Davis now on the map and somebody in Brazil sends letters! Of course we'd be a terrorist target!"

UC Davis wrote to NIH and asked if it could amend its application for a new site. In April it received a letter from Mary Kirker, an NIH grants management officer, saying that it would have to stick to the site applied for.

Bailey told UPI that if the university received the grant, it would build the lab over public objections.

The Boston University Medical Center announced earlier this year it "plans to establish a National Center for Emerging Infectious Diseases and Biodefense" at BioSquare in the university's medical campus in Boston's South End. The university applied, like Davis, for a grant from NIH to construct the facility.

"There will be significant community support for this project," the announcement said, adding Boston's popular, three-term mayor, Thomas Menino had "indicated his support."

BUMC said it commissioned a poll of the Boston community "that indicated a majority of Boston voters are favorable to having a National Biocontainment Laboratory in Boston." According to the news release, "after they heard the details of the proposal to locate such a facility in Boston, 59 percent in BUMC's surrounding neighborhood were favorable to having it located at the proposed site."

But last week, a group of neighborhood organizations and individuals, including a member of the city council and a state representative, issued a statement saying BUMC has given little or no information on what the laboratory would actually do.

In a letter to the NIH asking to forestall any action on BUMC's proposal, the group said that "very little information" was "provided to the public about the proposed activities and potential threats that they may pose to our health and safety." There were one million people living within a 10-mile radius of the proposed lab that "would be put at risk," they asserted.

The group also said they cannot determine from what BUMC has told them whether recombinant DNA technology will be used at the laboratory. They said such a process was barred by Boston regulation in 1994 and the regulation is still in force.

"Given what we know about these types of facilities," the group said, "we do not want it here."

Ellen Berlin, the director of corporate communications for the Boston University Medical Center, said the proposed BSL 4 laboratory would not be doing recombinant DNA as local groups charged and despite their opposition, the university argues it has the support of Bostonians.

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