

# THE TRUTH ABOUT BOSTON UNIVERSITY'S CLAIMS FOR ITS PROPOSED BIOTERRORISM LAB

## I. INTRODUCTION

Boston University (BU) has made many false and misleading statements about the bioterrorism laboratory with a BioSafety Level 4 (BSL4) component that it wants to build near Boston Medical Center in the South End/Roxbury. In response, we created this report and a web page at [www.ace-ej.org/](http://www.ace-ej.org/) that compare BU's claims about the lab to the truth. The web page has active links to sources and citations that show BU's duplicity. This is a paper version of the web page without the links and citations. We encourage you to use the web page to explore the links. We will update the web page as we research more of BU's campaign of misinformation.

To review BU's claims about the proposed lab, we asked it for documents, including a copy of its application to the National Institutes of Allergy and Infectious Diseases (NIAID) for funding of the lab. BU released an edited version of the application more than a year later and has refused to provide any other documents. We asked BU to appear on a panel with experts who have serious questions about the lab. BU refused to engage in a public debate about the lab.

## II. WHAT RESEARCH WILL BE CONDUCTED IN THE LAB?

**BU says:** Research will be conducted in the lab to find cures for AIDS/HIV, tuberculosis, and malaria, among other diseases.

**Truth:** NIAID is funding the lab to be available for research on pathogens that can be used for biowarfare as set forth in NIAID's Biodefense Research Agenda, not for research on AIDS/HIV, tuberculosis, or malaria. NIAID recognizes a number of "select agents" as having bioterrorism potential and will strongly emphasize research focused on those agents in its initial activities. Those agents do not include AIDS/HIV, tuberculosis, or malaria. Research in the lab will be conducted mostly on Category A agents that require a BSL4 lab for bioweapons research: anthrax, botu-

lism, plague, smallpox, tularemia, and viral hemorrhagic fevers (e.g., Ebola, Marburg, Lassa, Machupo). Category A agents require a BSL4 lab because they easily can be disseminated or transmitted from person to person, result in high mortality rates and have the potential for major public health impact, might cause public panic and social disruption, and require special action for public health preparedness. Research on AIDS/HIV, tuberculosis, and malaria does not require a BSL3/4 lab; it can be conducted in a lower level lab.

BU may not control the research to be conducted in the lab and thus cannot promise what research will be done. The NIAID Request for Proposals and Applications (RFPA) under which NIAID will fund the lab states, "Biocontainment facilities must be used for research and research training, with the specific goal of supporting the NIAID Biodefense Research Agenda and research identified by the NIAID as important to program goals.... The facility must be utilized for biomedical research purposes as determined by NIAID program needs for at least 20 years beginning 90 days following completion of the construction project." In addition, amendment #1 to the RFPA notes that the entities that are awarded funding to build the lab will need to compete for funding to operate and maintain the lab. NIAID announced that BU would build the lab, but has not selected the entity that will operate or maintain the lab.

## III. WILL SECRET BIOWEAPONS RESEARCH BE CONDUCTED IN THE LAB?

**BU says:** The laboratory will not be a bioweapons facility and will not be doing classified research.

**Truth:** As explained above, BU may not control the research to be done in the lab and thus cannot make promises about the research to be conducted. Instead, the laboratory must support NIAID's biodefense agenda. It is unclear whether that agenda, now or in the twenty years the federal government will control the research to be done in the lab, will include secret bioweapons research. It could -- and

likely will. As the Council for Responsible Genetics (CRG) has written:

Controversies in biodefense research stem from both the secrecy with which it is associated and the difficulty in distinguishing between offensive and defensive applications. Federally-funded research on biological weapons is marred by a history of secrecy and misinformation, most strikingly in the hidden offensive bio-warfare program carried out by the U.S. military from the beginning of the Cold War through the early 1970s. Over much of the last thirty years, the Department of Defense has provided an annual report to Congress explaining the nature and extent of its biological research program. After this disclosure policy was discontinued in the early 1990s, there has been growing concern about the potential for offensive research in U.S. laboratories.

CRG has also reported that the “distinctions between offensive and defensive applications of research on bioterrorism agents is difficult to establish at numerous stages of the research process.” The U.S. has objected to any international agreement on binding verification of research on biological warfare agents and thus there is no monitoring of biological defense and warfare research.

Others who have reviewed the issue also have concluded that there is a high likelihood that classified research will be performed in the lab. Faculty at the University of California at Davis, who opposed their university’s application to NIAID for funding for a BSL4 lab, reviewed federal policy, spoke with NIH officials about the lab, and concluded that it is almost certain that classified research would be conducted at the lab. They wrote that, “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.”

#### **IV. WILL THE LAB MAKE BOSTON SAFER?**

**BU says:** The lab will make it safer to be in Boston. It will make Boston one of the best pre-

pared cities in the event of a bioterrorist attack.

**Truth:** The lab will be conducting research, not manufacturing vaccines or treating patients. There is no space in the lab to manufacture vaccines or other drugs or to treat patients in the event of a bioterrorist attack. There is no plan to manufacture a vaccine or drug in Boston or to have them available in Boston sooner than anywhere else in the country.

Amendment #1 to the RFPA mandates that the lab “not include clinical space that would be used only in the event of a bioterrorism emergency.” Clinical space is required that “will support small-scale clinical trials and a patient contamination ward for accidentally exposed users.” In other words, there will be clinical space to infect and experiment on persons and for persons who are accidentally exposed while working in the lab, but there will be no space to treat the public in the event of a bioterrorism emergency.

#### **V. WILL THE LAB JEOPARDIZE COMMUNITY HEALTH AND SAFETY?**

**BU says:** The lab will be safe. The BSL4 laboratories in North America have more than 73 combined years of operation with a perfect safety record -- there has never been a community incident or environmental release connected with a laboratory of this kind. The quantities of agents to be tested are too small to pose a risk to the local area.

**Truth:** Biodefense research in the U.S. often involves the study, and sometimes the weaponization, of the most lethal pathogens known. Although authorities insist that such research is conducted under the strictest possible security, mistakes are inevitable. The lab will use sophisticated technologies and procedures to decrease the risk of an accidental or intentional release of pathogens and to prevent a release resulting from a terrorist attack, but as we have seen in many other instances, accidents occur, sophisticated technologies are imperfect and fail, and some people have nefarious motives. Releases could occur by many means, including a breach of the containment system, infections of workers, escape of infected research animals, or while the viruses are being transported to the lab. The consequences could be deadly if there were a release of pathogens from

the lab into the nearby densely populated neighborhood. More than 50,000 people live within one mile of the project site and more than one million people within ten miles.

Safety experts say that BU is misleading the public by its claims that it will use only small quantities of deadly pathogens. They explain that a small quantity of organisms is a threat because the organisms multiply and, for some pathogens, there may be as many as one billion virus particles per milliliter of material. Further, the release of a small quantity of pathogens could be enough to infect people with deadly disease. They also doubt BU's claim that only small amounts of materials will be used, noting that for meaningful research the lab will have to produce larger stocks of each type of agent from the smaller amounts initially received.

Contrary to BU's claims of perfect safety records, there have been accidents and releases at BSL3 and BSL4 labs. The latest, a release from a level 4 lab, took place at the BSL4 lab in Taiwan, where a researcher, unknowingly infected with SARS in the lab, left the lab. Fortunately, there is no report of anyone contracting SARS from the researcher. This is to be expected at such labs: researchers get infected. It has happened at the Center for Disease Control's own BSL3/4 lab in Atlanta.

In another example, an escape of aerosol anthrax from a Soviet microbiology facility in 1979 caused an anthrax epidemic in which 96 people contracted anthrax and 64 people died. The anatomical evidence is that the victims died from inhaling the escaped aerosol anthrax. Most of the victims lived or worked in a narrow zone extending downwind from the facility for about 2 1/2 miles. There were also many animal deaths from anthrax. The official account was that the USSR was using the facility to develop a vaccine for anthrax and was unaware of any release from the facility.

A compilation of known releases, staff infections, and security breaches at high-security biocontainment labs is found in the Council for Responsible Genetics document, *Mistakes Happen: Accidents and Security Breaches at Biocontainment Laboratories*. Examples we found are on pages 2-4 of our document, *Facts about the Boston University Proposal to Build a National Biocontainment Labora-*

*tory at Boston Medical Center*. (Download the documents: [www.ace-ej.org/Biodebunking.htm](http://www.ace-ej.org/Biodebunking.htm).)

NIAID itself has acknowledged the risk of releases from BSL4 labs. In a memo dated December 15, 2000, it wrote that a reason to build a BSL4 lab in rural Montana, "well removed from major population centers" is that "the location of the laboratory reduces the possibility that an accidental release of a biosafety level-4 organism would lead to a major public health disaster."

The lab would also be a potential target for terrorists, who might view the lab as a source of bioweapons materials or a facility to destroy. An attack on, or infiltration of, the lab could result in the release of pathogens or escape of infected laboratory animals, with deadly results. An attack on the lab that did not release pathogens might nonetheless cause damage in the nearby community.

## VI. HOW MUCH RESEARCH FUNDING WILL THE LAB RECEIVE?

**BU says:** The lab will have a \$10-\$20 million operating budget for 20 years and \$50-70 million per year of funded research.

**Truth:** We don't know how BU decided on those numbers because it refuses to release any documentation to support its claims. NIAID's position on funding for the lab is set forth in the question and answer portion of amendment #1 to the RFPA for the lab:

Q: Can the government provide any assurance as to the level of contracts/grants placed in the RBL/NBL over the next 20 years?

A: No.

## VII. HOW MANY CONSTRUCTION JOBS WILL THE LAB REQUIRE?

**BU says:** More than 1,300 construction jobs will be created by the development of the laboratory with a goal that 50% of the construction workers will be Boston residents.

**Truth:** That is not what BU has told city and state regulators. On September 30, 2003, BU submitted a Draft Project Impact Report/Draft Environ-

mental Impact Report (DPIR/DEIR) for BioSquare Phase 2 (which includes constructing an unrelated lab building and a parking garage in addition to the bioterrorism lab) to the state and city. In the DPIR/DEIR, BU claimed that the entire BioSquare Phase 2 project would employ over 620 new construction jobs over a seven-year period -- far fewer construction jobs than the 1,300 BU now claims. Many of the construction jobs will be very short-term; there will never be even 100 construction workers on the site at one time. The DPIR/DEIR states that the entire BioSquare Phase 2 project would require no more than 75 construction workers on any one day. (We also note that the 1999 plan for the area that did not include the bioterrorism lab had more buildings and likely would have created more construction jobs.)

The Boston Jobs Policy mandates that at least 50% of the construction employee work be for Boston residents, 25% for minorities, and 10% for women, so BU's "goal" understates the requirement to employ local residents, minorities, and women.

### VIII. HOW MANY PERMANENT JOBS WILL THE LAB REQUIRE?

**BU says:** It is projected that 660 jobs will be created to run the laboratory. This includes all types of jobs at all levels including: environmental services, lab technicians, scientists, and administrative staff. BUMC is committed to working with city agencies to ensure that Boston residents are trained to work in this kind of laboratory.

**Truth:** BU has refused to release any information about the number, educational and training requirements, and types of jobs to be created. As noted above, the federal government may choose an entity other than BU to operate the lab, fund research in the lab by entities other than BU, and place its own staff in the lab, thus making it impossible for BU to know or commit to the number of jobs to be created and available for local residents.

BU's DPIR/DEIR for BioSquare Phase 2 estimated that the lab would generate the need for 275 parking spaces, based on 48% of employees driving alone, which yields an estimated 573 employees working in the lab -- far fewer than the 660

BU now claims. In other statements, BU has said that it expects scientists and graduate students to come from out of state to work in the lab, thereby significantly limiting the number of positions that are available for local residents.

The Daily Free Press, the student newspaper at BU, reported on January 17, 2003, that Dr. Mark Klempner, who has led BU's effort to build the lab, said that the lab would "provide the South Boston area with maintenance and janitorial jobs."

A 1991 survey of biomedical research related facilities showed that only about 5% of the jobs in those facilities would be available to persons with only a high school education. Given the security clearances required to work in the lab, it is unclear how many of those jobs might be available to local residents.

### IX. HOW CAN I LEARN MORE ABOUT THE PROPOSED BIOTERRORISM LABORATORY?

For more information, visit:

- ACE's web page against the lab: [www.ace-ej.org/](http://www.ace-ej.org/)
- CRG's web page about biowarfare: [www.gene-watch.org/programs/biowarfare.html](http://www.gene-watch.org/programs/biowarfare.html)
- CRG's web page about the lab: <http://gene-watch.org/bubiodefense/>

*Based in Roxbury, Massachusetts, Alternatives for Community & Environment (ACE) has been working in partnership with low income communities and communities of color since 1994 to achieve environmental justice. See, [www.ace-ej.org](http://www.ace-ej.org). The Safety Net is comprised of public housing residents and others in Roxbury who came together in 2000 to develop a voice and vision for a sustainable Roxbury and equitable metropolitan development.*

*ACE and the Safety Net are part of a large and growing coalition of community residents and advocacy groups, elected officials, scientists, and others who oppose Boston University's proposal to construct a bioterrorism lab with a BSL4 component near Boston Medical Center in the South End/Roxbury neighborhoods of Boston.*