Hearings before Boston City Council
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Testimony of Jonathan King, Professor of Molecular Biology, MIT.

Members of the Council: Good morning and thank you for this opportunity to address you.

An extraordinary feature of all living creatures is their ability to reproduce themselves. Chemical, heavy metals, and oil spills have been very damaging sources of pollution in industrial society. However, once released into the environment they do not reproduce further. Eventually the oil is degraded, the metals are returned to the mineral forms. Even radioactive contamination and fallout decays away.

This is not the case for organisms. Once established in the ecosystem they grow, reproduce, mutate, and cannot be called back.

We have an enormous variety of natural examples of induced or emergent microbial, viral and fungal pathogens: for example, chestnut blight fungus and Dutch elm disease of plants; Mad Cow disease in cattle; swine flu, HIV and SARS in humans.

Thus any endeavor, which involves the possibility of generating new human or animal pathogens, needs to be examined with the greatest stringency, care and skepticism. In particular the location of a high risk bioterrorism facility in a densely populated area such as downtown Boston violates all standards and experience for siting such facilities in a manner that protects the public health and welfare in a prudent manner.

Within a community one of the sources of infectious organisms is from medical and research institutions themselves. Among patients entering hospitals with an unrelated ailment, some 5% of patients pick up an infection from the hospital environment itself, so called nosocomial infections. Some of these patients upon their release carry the infectious agent out into the community.

Consider SARS with the first cases probably in 2002: As of May of 2003 there were 7956 documented cases, with 666 deaths. The source of these cases was a small number of initially infected individuals, who then spread the corona virus to unsuspecting contacts. In the recent 2003 SARS epidemic in Hong Kong, one of the clusters of 125 ill in the Prince of Wales Hospital were infected through contact with a single individual. A number of these infected individuals were discharged before SARS symptoms emerged, and transmitted the infection to others outside the hospital.

Proponents of the new Bioweapons facility will say this is not a hospital but a high containment facility. However this is also true for high containment facilities; Individuals working in the facility are infected, and put at risk the outside community as they come and go. Thus in a recent SARS case, Lieutenant Colonel Chan, worked in Taiwan was an investigator working in a high containment facility at the National Taiwan Defense university in Taipei. In August a similar case was reported in a scientist the environmental health institute in Singapore. Many prior examples of infections of individuals working in containment laboratories have been publicly reported, Flu cases, Ebola virus at Yale medical center, smallpox cases in Britain.

This is precisely why dangerous pathogen laboratories were located in very isolated environments; Plum Island at the tip of Long Island for hoof and mouth and related infectious viruses; Dugway Proving Ground, in the desert of Utah for the testing of biological weapons when such programs were operative. The major US bioweapons facility during the Cold War was at Fort Dietrich Maryland. This is a fully militarized facility with armed guards, known to every in the community. There were some

60 documented accidents involving exposure of lab workers within the facility, with a risk of contamination or release. There were at least two deaths, William Boyle a lab scientist, and Joel Willard, an electrician (in 1958) of Anthrax like symptoms. There are almost certainly underestimates because security concerns are generally used to maintain secrecy wherever possible.

The Bioterrorism facility proposed by Boston University poses new and novel dangers from new and novel infectious agents. The RFP identifies the agents to be studied as particularly hazardous to humans; or agents that might be difficult to detect; pathogens that might evade or fool the immune system; or pathogens that might spread with particular efficacy.

A significant number of the investigations carried out in the new facility would involve the construction of such agents, whose properties will not be known beforehand; these agents will be by design the most difficult organisms to contain, to diagnose, to treat.

A major part of a biosafety program for such a lab involves total community health surveillance. This is impossible in an urban setting where a significant number of residents lack health insurance, and even when ill, don't visit a physician or hospital. Whether the novel infectious agents could be quickly and accurately diagnosed is highly unlikely; the security regime will certainly prevent neighborhood physicians or public health officials from being informed of the agents under development at the Bioterrorism facility.

Despite the enormous sums of money we are still taking about somewhat competitive environments where investigators need to get results, need to publish, and where PI'S will tell their staff, "Don't worry, that's only something we proposed to get the funds, you don't really need BL4 conditions."

It is worth noting that just a few months ago one of the leading researchers of novel pathogens – Prof Thomas Butler of Texas Tech University - was convicted of criminal activity; including carrying plague Yersinia pestis from Tanzania back to the US in unmarked vials, rather than going through customs. Was he a criminal or terrorist? No, he was a biomedical researcher, like the ones who will be employed at the Bioweapons facility' needing to get his grants renewed, his papers published, unwilling to risk the delay of having customs review the samples.

Such facilities bring new risks to their own communities, destabilize the international non proliferation regime, almost certainly violate the Biological Weapons Convention; As in Sverdlosk, it was the Russians who lived and worked near the facility that died of anthrax, not any foreign enemies. The anthrax that killed five Americans was almost certainly obtained from one of the US Biological Weapons Defense Program facilities.

In a period when we have real public health problems, HIV, SARS, TB, new flu strains, our nation cannot afford to waste hundreds of dollars for endeavors whose most likely outcome is the introduction of deeply nasty pathogens into the human environment. The new facility will do far more to decrease the security of Boston area and US residents than it will to protect them.

If existing national labs are inadequate, any new facilities should be sited in isolated contained communities, such as Fort Devens or other former military bases.