

In the name of defence

Bioweapons research in the US could trigger just the sort of arms race it is meant to forestall. But that is the least of our worries, argues **John Steinbruner**

IN FEBRUARY of 2005, the US Department of Homeland Security announced the creation of a new facility to study the threat from biological weapons. The National Biodefense Analysis and Countermeasures Center (NBACC, pronounced en-back) is currently being built at Fort Detrick in Maryland at a projected cost of \$128 million. It will have enough lab space to fill a football pitch, and 20 per cent of it will offer the highest level of containment, Biosafety Level 4, designed to handle the most dangerous and exotic pathogens. The entire compound will operate under the same level of secrecy used to protect nuclear weapons information and other matters of national security considered to be unusually sensitive.

This kind of secrecy is cause for concern because of the destructive potential NBACC will explore. It has said that it will study the genetic manipulation of pathogen virulence, the dynamics of aerosol dispersion and other ways of delivering biological agents. NBACC argues it is necessary to study advanced offensive applications of biotechnology so that protective countermeasures can be developed.

The problem is that this kind of work may contravene the 1972 Biological and Toxin Weapons Convention (BWC), which bans the development, production and stockpiling of biological weapons. NBACC says its work is defensive in character, but by secretly exploring potential offensive applications, the US is behaving in a way it would not tolerate from other countries. The danger, say critics, is that setting up such a facility could encourage other countries to do the same. And if that happens, NBACC will have helped to create the very threat it professes to counter.

These concerns have barely registered in public discussion, but that is bound to change. Biotech research has huge implications. Techniques for making infectious diseases more



virulent have already been identified. As the study of molecular bioregulators progresses it might become possible to devise infectious pathogens able to manipulate thoughts and feelings.

When the implications of these developments are become apparent to the wider public, there will be insistent demand for protective regulation. Because NBACC's explicit focus on threatening applications, the facility is likely to become a focus for attention. So how should it operate and under what kinds of rules?

First, do no harm. This principle of the ancient Hippocratic oath was formalised in the 1925 Geneva Protocol, which banned the use of poison gas and bacterial agents, and later in the 1972 BWC, which banned the development of biological weapons. It is at least implicitly accepted by all governments today. It is arguably among the most significant universal rules of human civilization.

NBACC professes allegiance to this principle but justifies its exploration of the offensive potential of biological

weapons by presuming unspecified enemies will violate the principle. That justification is likely to be contested by an increasingly clued-up public. If there is no legitimate threat, the legitimacy of threat assessment becomes questionable.

NBACC justifies its presumption by citing the prominent historical instances of blatant violation – most notably, the use of biological agents by the Japanese Army in the second world war and the development of such weapons by the Soviet Union during the Cold War. But an informed world alert to the inherent dangers of biotechnology is not likely to tolerate any repeat of these episodes.

Justifying a threat assessment also depends on what interest it serves, and on that question NBACC is again vulnerable to international objection. The work it proposes to undertake could endanger the human species as a whole. The national security interest of the US is profoundly linked to global public health and the latter will almost certainly be judged the predominant consideration. Threat assessment can only be justifiable if it serves this broader interest.

Consequently, NBACC will require a very different set of operating rules from the ones it has adopted. Each project must be judged on its own merit by people who understand both the science involved and the potential social effects. There can be no generic justification for threat-assessment projects. As with any important matter, the public will demand independent oversight of these judgments. That will mean involving competent people who are not exclusively beholden to NBACC or to the US. Given prevailing political attitudes, that will be a difficult to do, but whatever the difficulty NBACC will have to be made sufficiently transparent to reassure the domestic and international community.

Transparency, comprehensively applied and actively enforced, is an indispensable method of protection against the abuse of biotechnology. As it is currently conceived, NBACC is a threat to this safeguard, and will eventually have to be reformed, gracefully or otherwise. ●

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John Steinbruner is professor of public policy at the University of Maryland