Allaying the Threat of Biological Weapons

SIR BRIAN HEAP'S EDITORIAL "SCIENTISTS against biological weapons" (16 Nov., p. 1417) reminds me of a mischievous and skeptical aphorism attributed to Amrom Katz, a shrewd arms control analyst at Rand Corporation many years ago. Katz said, "We have never found anything that the Soviets have successfully hidden" (*1*, p. 212).

It is one thing to say you are "against biological weapons," but it is another to recognize how difficult is the process of inspection and verification at reasonably high levels of reliability. We now know, of course, that the former Soviet Union manufactured tons of biological agents after pledging formally and publicly that they would not. We have good reason to believe that Iraq is in the same category of using talent to cheat on commitments. We suspect that North Korea is in that category as well.

So what is the answer? At least four efforts need to be sustained. First, international "norms" are a baseline. Although words do not deter everyone, it is extremely important to underscore over and over again the abhorrence all peace-loving people have about biological weapons. Second, occasionally it might be necessary to use force, such as in the present war in Afghanistan. Only force can work in the extreme cases. Third, we need a surge of effort by the National Institutes of Health, academic health centers, and industry on vaccines and drugs against biological weapons. And fourth, more research and development (R&D) should be devoted to improving ways of defending against biological weapons and verifying, if feasible, the terms of any treaty. The U.S. Department of Defense, including the Defense Advanced Research Projects Agency, merits our help.

Generalities about making treaties and warnings about the biological weapons threat are not enough. Hard work on the bully pulpit, military action when essential, biomedical research on therapy, and R&D on inspection, verification, and defense these are the four keys to eliminating denial of the threat and shoring up the foundations of freedom.

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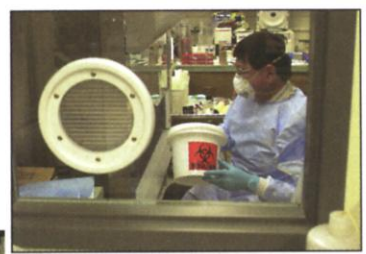
References and Notes

1. A. Katz, in *Verification and SALT: The Challenge of Strategic Deception*, W. C. Potter, Ed. (Westview, Boulder, CO, 1980), pp. 193–220.



The reality of dealing with biological weapons.

Response

I WAS GLAD TO SEE THAT Nichols agrees that it is extremely important for everyone to show their abhorrence to the use of biological weapons. The suggestion that attention should be devoted to developing effective therapies and vaccines is a further example of the valuable role that scientists can play in tackling the threat from biological weapons.

I welcome the creation of the liaison role between the U.S. National Academy of Sciences (NAS) and the White House Office of Science and Technology Policy, as this will enhance the impact of the extensive program being undertaken by the NAS on bioterrorism. However, the suspension this past November of the Fifth Review Conference of the Biological Weapons Convention until November 2002 was very disappointing. It suggested that some nations, particularly the influential United States, would need to enter into serious discussions about monitoring and verification in sensitive areas, such as the biotechnology and pharmaceutical industries (with emphasis on protecting intellectual property). Such discussions would be difficult, but the example of the Chemical Weapons Convention has shown that it is possible to include industrial interests and produce a verifiable international protocol.

Research on therapy vaccines and other defensive measures can only ever be part of the picture; we also need international commitment to reinforce the existing prohibitions on the development, production, and use of biological weapons. Bioterrorism and biological warfare is an international issue, and no individual nation will benefit by focusing on its own industries and defense to the detriment of a global effort to reduce the threat of biological weapons.

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Studies of Dietary Fat and Heart Disease

IN HIS LETTER ABOUT THE ARTICLE "THE soft science of dietary fat" (News Focus, G. Taubes, 30 Mar. 2001, p. 2536), Scott M. Grundy says that saturated fatty acids (SFA) are the main dietary cause of coronary heart disease (CHD) ("Dietary fat: at the heart of the matter," 3 Aug., p. 801), and he cites two reviews in support (*1, 2*).

In one of the reviews, there are no references (*1*); in the other, of which Grundy is a co-author, most of the references do not appear to be supportive of his statement (*2*). For instance, the authors say that "populations consuming diets high in saturated fats have relatively high levels of serum cholesterol and carry a high prevalence of coronary heart disease" (*2*, p. 34), referring to 12 studies (*3 14*). In the eight cohort studies

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