dure to the potential offspring, and the problem of allocation of scarce health care resources. He concluded that the procedures do not pose "unreasonable risk"; as for resources, he predicted that costs would decline as the success rate of the procedure continued to improve and contended that "a strong equity argument can be mounted" for making the service available to all infertile couples "at least in countries where other basic health-care needs have been met."

Walters concluded that in view of the "convincing arguments for the ethical acceptability" of research on in vitro fertilization, the Department of Health and Human Services (HHS) should at least evaluate the desirability of supporting clinical trials. The HHS has been avoiding the subject, although it has been funding studies of in vitro fertilization in rodents, rabbits, cows, and primates.

—Constance Holden

CIA Director Warns Scientists

Admiral Bobby R. Inman, deputy director of the Central Intelligence Agency and past director of the National Security Agency, warned scientists at the AAAS meeting that Congress is ready to move to resolve the conflict between academic freedom and national security in favor of the latter. "I think the tides are moving and they're moving fast toward legislative solutions. There will be pressure for legislation to stop the hemorrhage of the nation's technologies," he said.

Speaking at a symposium on Striking a Balance: Scientific Freedom and National Security, Inman declined to elaborate on his warnings, saying that much of his information is classified. But he stressed that it would be in scientists' own best interests to recognize the mood of Congress and to voluntarily cooperate with the intelligence agencies. Although many scientists fear that by cooperating they will be forfeiting their academic freedom, Inman predicted that far more serious threats to academic freedom could occur if scientists refuse to cooperate. Once it becomes clear that certain publications have harmed national security, Inman said, the situation "could well cause the federal government to overreact."

Admiral Bobby R. Inman

The NSA is particularly concerned about the publication of new results in cryptography which could inadvertently compromise this nation's codes or its abilities to break the codes of other nations. As a result of Inman's suggestion several years ago that academic scientists and the NSA talk about their respective concerns regarding cryptography research, a Public Cryptography Study Group was formed and, last year, recommended that researchers voluntarily submit research papers on cryptography to the NSA for prepublication review. Inman praised that recommendation and said that of the 25 papers that have already been sent to the agency for review, none "has yet raised security concerns."

Some critics of the Public Cryptography Study Group's recommendations have argued that the NSA has not made its case that national security could be endangered by the open publication of certain results in cryptography. "This reasoning," Inman said, "is circular and unreasonable. The specific details of why information must be protected are often even more damaging than the information itself."

Inman questioned the depth of feeling among scientists that they should have absolute freedom to publish. "Scientists' blanket claims of freedom are somewhat disingenuous in light of arrangements made with corporate concerns. There is no problem with holding back research for trade secret reasons. This attitude is based largely on the fact that the federal government rather than corporations is the source of the restrictions. This assumes that corporate interests are at a higher level than national security concerns. I could not disagree more," he said.

In the next few months, Inman said, Congress will be addressing the issue of technology transfer. Of central importance, he remarked, is the fact that "In the build up of Soviet defense capabilities, which has gone on steadily since 1964, the bulk of the technology they used has been acquired from the United States or its closest allies." When Congress looks into this situation, Inman predicts, "It is inescapable that there will be questions of export controls and of whether additional legislation is necessary."

But Inman does not believe that basic research need be suppressed. "I have a personal persuasion that basic research has caused minimal worries for national security. It is the application of that research and studies of how to apply it that cause concern," he said.***—Gina Kolata***

Scientists Honored for Freedom and Responsibility

Four scientists were given the AAAS's first award for Scientific Freedom and Responsibility at the annual meeting this month. A $2000 prize was divided equally among the four.

Morris Baslow, a marine biologist, was honored for publicizing research findings about the possible adverse impact on Hudson River life of power plant operations. For this he was discharged by his employer (*Science*, 14 November 1980, p. 749). Other award winners were Stanford biochemist Paul Berg; Maxine Singer, biochemist at the National Institutes of Health; and Norton Zinder, geneticist at Rockefeller University. The three were cited for their leadership in the recombinant DNA debate. Berg led the group that called for the 1974 moratorium on research; Singer organized the Asilomar conference that led to the formulation of NIH guidelines, and Zinder was a leader in developing gene-splicing techniques as well as in bringing the issues to public attention.***—Constance Holden***