

nearly 200 years ago and was purposely designed along military lines. The commissioned corps was to be a mobile force, and its members were to be subject to duty anywhere they were assigned. Today, about half of the 5000 commissioned officers of the Public Health Service work for the Indian Service, but as many as 700 have what seemed to be permanent positions at NIH.

There are between 2500 and 3000 researchers with M.D. or Ph.D. degrees at NIH, and those in the PHS usually came to NIH first as research associates—an untenured position. After 7 years, they were offered positions in the civil service or the PHS, and so those in the PHS usually never worked anywhere else as commissioned officers. The advantages of the PHS are the retirement benefits after 20 years and the military health plan. The PHS officers earn about \$10,000 a year more than their civil service counterparts, but this wage disparity has varied over the years and there have been times when civil servants made more.

Earlier in this century, the Public Health Service corps helped eradicate malaria and other diseases in this country, and its doctors treated wounded servicemen in military camps during World War I. But as years went by, the corps has gradually changed. A number of physicians joined the corps during the Vietnam War as an alternative to military service and ended up doing research at NIH. Some have not practiced medicine since they joined the corps, although others do see patients as part of clinical research projects. Commissioned officers working in the Indian Service or the Bureau of Prisons have very different experiences from those of officers doing research at NIH and it is virtually unheard of for an NIH officer to be routinely reassigned to working in a prison, for example.

In a prepared speech at NIH on 31 March, Koop said, "The day after I was sworn in as Surgeon General I told then Assistant Secretary for Health Edward Brandt that the corps was not as it was advertised—expert, flexible, and mobile—our only defense against nonmilitary disaster. And if it was evident to me on the inside, think how it appeared to those who were outside at the time."

Among Koop's proposals to revitalize the the officers corps are a requirement that commissioned officers be reassigned every 4 to 5 years, that there be mandatory retirement after 20 years, and that officers own and wear uniforms. Each of these items is a bone of contention at NIH.

The rotation of duties, says Wyngaarden, may be acceptable elsewhere, such as in the Indian Health Service, because it creates

upward mobility. But at NIH, "we have a stable group of creative scientists. Enforced changes of station would be disruptive to research teams." A lab chief, who asked not to be named—and who said "the fact that I have to ask you not to use my name says something important about this issue"—adds that assignments of scientists among research groups at NIH "have been determined by scientific excellence and contributions to the research program." The problem with mandatory rotations of duty is that it means that "somehow the corps takes precedence" over these scientific considerations.

Mandatory retirement is also rejected at NIH. It is, says Wyngaarden, "very disturbing." The NIH could lose excellent scientists if they had to retire after 20 years with the Public Health Service.

Then comes the uniforms—a real sticking point for many at NIH. They view the uniform, says Wyngaarden, as "a routinized expression of loyalty. It seems to us that it's not needed." In addition, he says, it gives a distasteful message of conformity. "Creativity and conformity just don't go together," Wyngaarden says. Wyngaarden owned a uniform during the Korean War, but does not have one now. The anonymous NIH lab chief goes still further. "I regard this as an academic institution," he says. "Uniforms create a distinction that is detrimental and divisive."

Michael Zasloff, who is chief of the human genetics branch at the National Institute of Child Health and Human Development, says "a uniform signals a discipline and a rigidity that many scientists don't feel comfortable with in the atmosphere of the NIH."

Of course, there is always the argument that if the commissioned officers do not like the revitalization plan, they can simply get out and join the civil service or find employment outside the government. But the officers say that is not so easy. In particular, they are reluctant to leave because they would lose all retirement benefits if they resign before they have served for 20 years. But there is a deeper issue. The critics at NIH say it is important to realize that the commissioned officers corps actually has served NIH very well the way it is. If officers were to give up and resign from the corps they would be, in a sense, turning their backs on an institution that holds their first loyalty.

"Look at the reality of what's being done," says Samuel Broder, who is associate director of the clinical oncology branch of the National Cancer Institute. "The corps is serving the needs of the research community very successfully now." The commissioned officers, including Broder, quickly geared up

to meet the AIDS challenge, for example. And because most of the senior doctors and residents who are doing AIDS research at NIH are commissioned officers, they can immediately be reassigned to work wherever the need is greatest. "The corps makes it possible to transfer people from one assignment to another with essentially no red tape," Broder says.

Zasloff agrees. "Although Koop argues we are not mobile anymore, it's not true. We are not mobile in a physical sense but we have the capacity to deal with problems with great fluidity. Any major scientific problem can be immediately studied at NIH. We are a mobile force, but we don't physically move anywhere."

Wyngaarden says he and Koop are preparing to discuss the revitalization plan further and that there is still room for compromises. But as matters stand now, says Wyngaarden, the outlook for NIH is not good. "I don't know that any of Koop's proposals benefit NIH," he says. It is hard enough to retain good scientists now, he explains, "we are slowly losing the battle with academia and industry is competing very heavily. This will not help." ■ GINA KOLATA

## Ariane, Shuttle Delayed Again

The next launch of the European rocket Ariane is provisionally scheduled to take place in August, it was announced in Paris last week. This will be 15 months after the previous flight in May 1986, which ended when the third stage of the rocket failed to ignite. It is also 2 months later than expected. The accidental "mishandling" of a test motor at the end of March and the discovery of two minor technical problems unrelated to last year's failure caused the additional delay.

[The U.S. space shuttle will also be late getting back into service. Last week, the National Aeronautics and Space Administration announced that the next shuttle flight will be delayed until June 1988, 4 months later than planned. The delay will permit additional testing of modifications made after the Challenger disaster. Moreover, only three shuttle flights are now planned in 1988 and seven in 1989. Last October, NASA announced that it planned to launch five in 1988 and ten in 1989.]

The delay in launching Ariane has been costly for Arianespace, the company responsible for the commercial operation of the rocket; the bill for modifications to the launch vehicle, and for meeting ongoing

commitments during the period with no launches, is said to total more than \$250 million. It has also been a frustrating time for Europe's space scientists and engineers; for example, the next scientific payload, the European Space Agency's star-observing satellite HIPPARCOS, is not now due to be launched until the middle of 1988, more than a year later than previously planned.

However, last year's aborted launch, the fourth failure in 18 flights, does not seem to have had a major impact on Ariane's commercial prospects. Arianespace officials announced last week that they currently have signed contracts for 44 future satellite launches worth a total of \$2.35 billion. In February 1986, there were advance orders for only 29 satellites worth less than half this figure. Reservations have been made for a further 24 launches.

Furthermore, the most significant growth has been in non-European customers. This is a reflection both of the intense worldwide sales campaign that has been conducted by Arianespace (which now has its own offices in Washington, D.C., and Tokyo) and of the delays to the U.S. space shuttle launch schedule.

Thus, Arianespace can now boast that more than half its future launches will be for non-European enterprises and organizations. The total number of firm contracts signed with U.S. companies, for example, has risen from 8 to 14, and other contracts have been agreed with organizations in Japan, India and, most recently, Canada.

The August launch is scheduled to put into orbit two television and telecommunications satellites. Two further launches are currently planned before the end of the year—originally it was hoped to have seven in 1987—with eight in 1988 and nine in both 1989 and 1990. One of the earliest will be the first launch in January of a new version of the European launcher, Ariane IV, which will be able to place into transfer orbit a payload up to 4200 kilograms, compared to the maximum of 2000 kilograms that can be carried by the current version.

Both psychologically and politically, however, the August launch will be by far the most important. Not only will Arianespace's growing list of future customers need a clear demonstration that the technology can be trusted, but the launch will take place shortly before a crucial meeting of European research ministers called to agree on the detailed contents of their joint space program over the next 10 years, a program in which France is determined that its plans for a much larger version of Ariane, Ariane V, should play a central role. ■

DAVID DICKSON

## Bavaria Requires AIDS Testing

The West German state of Bavaria last week introduced stringent regulations covering individuals infected with the virus widely regarded as the cause of Acquired Immune Deficiency Syndrome (AIDS). These rules include the compulsory screening of all those applying for public sector jobs, similar screening of non-Europeans seeking residency permits, and the forced isolation of those carrying antibodies to the AIDS virus who refuse to follow specified preventive procedures, such as a ban on breast-feeding.

The Bavarian action has been taken despite a joint decision the previous week by the health ministers of the 12 member countries of the European Economic Community (EEC) to reject demands for rigid controls on potential AIDS sufferers, such as systematic border checks and the mass screening of specified social groups.

Several individual countries have already established their own controls. For example, the West German Interior Ministry has in-

structed its border guards to turn away any non-European believed to be suffering from AIDS or infected by the virus.

The Bavarian government, which is controlled by the right-wing Christian Socialist party, had already gone further than most by introducing compulsory AIDS tests for all prostitutes, prisoners, and drug addicts. In announcing the new measures, the state's health minister said he hoped that they would be followed by similar steps elsewhere in Germany.

The health ministers of the 12 EEC countries, meeting in Brussels on 15 May, issued a joint statement expressing "their hostility toward any system which clogs up the circulation of individuals and toward any discrimination which does not have a clear scientific foundation." Border controls and mass screening, said the ministers, were both "inefficient" forms of prevention.

Germany's federal minister for health, Rita Süßmuth, was among those who signed the statement, and she has taken a strong stand in favor of preserving the anonymity of AIDS victims. However, under Germany's constitution, responsibility for health policy is left in the hands of individual states. ■ DAVID DICKSON

## Prosecution Urged In Fraud Case

The National Institute of Mental Health (NIMH) has concluded that one of its former grantees, Stephen E. Breuning, "knowingly, willfully, and repeatedly engaged in misleading and deceptive practices in reporting results of research," and "that he did not carry out the described research." The finding is the result of a protracted investigation stemming from concerns about the authenticity of Breuning's work, first conveyed to NIMH in December 1983 by Robert Sprague of the University of Illinois at Urbana-Champaign, a former colleague of Breuning's (*Science*, 19 December 1986, p. 1488).

Donald Macdonald, head of the Alcohol, Drug Abuse, and Mental Health Administration, NIMH's parent agency, has referred the case to the Justice Department with a recommendation that prosecution of Breuning be considered. No previous case of alleged scientific fraud is known to have resulted in criminal prosecution. In addition, Macdonald has recommended that Breuning be barred from receiving grants or contracts from the Department of Health and Human Services for 10 years.

Breuning, 34, who is currently an assistant director at the Polk Center in Pennsylvania's Department of Public Welfare, is the author of several influential studies on the

use of psychoactive drugs with institutionalized mentally retarded patients. He supposedly conducted research at two institutions in Michigan in the late 1970s and was at the University of Pittsburgh School of Medicine from January 1981 to April 1984.

A panel established by NIMH under the chairmanship of Arnold J. Friedhoff of New York University notes that Breuning's work "made a strong impression on the mental retardation field with a small number of publications in which he described well-designed studies that produced relatively robust and straightforward findings," and that his studies have affected treatment of the mentally retarded in several states.

The Friedhoff panel concluded, however, that many of the studies Breuning reported were in fact never carried out. "Only a few of the experimental subjects described in publications and progress reports were ever studied," the panel said.

In a lengthy response to a draft of the Friedhoff report, Breuning maintains that he did not engage in fraudulent practices and accuses the panel itself of using "threat and intimidation." The panel says it "found no reason to change the substance of its report or its conclusions," on the basis of Breuning's comments. ■ COLIN NORMAN