Congress, NIH Open Coffers for AIDS

Fear, political pressure, and scientific interest have prompted a surge of research funds; the course of the epidemic remains hard to predict

Fears about the spread of acquired immune deficiency syndrome, AIDS, an enigmatic disease that primarily afflicts homosexual men, have opened up a substantial source of new funds for biomedical research. Although there have been many complaints that the disease has been relatively neglected, this year alone the federal government will spend more on AIDS research than was spent over an 8-year period on Legionnaire's disease and toxic shock combined.

The chief source of this unprecedented spending spree is the Department of Health and Human Services, which is already devoting $14.5 million to AIDS research this year. Congress may add another $12 million in the 1983 supplemental appropriations bill still in conference. In addition, the department is supporting many scientists studying subjects directly related to AIDS, although they are not officially counted among the recipients of AIDS research grants. Several nongovernmental organizations have also begun to put money into the field.

The federal government is pouring money into AIDS research partly as a response to political pressures generated by fears that the disease may turn into a major epidemic. Furthermore, the homosexual community has become an important voting block in certain areas of the country and politicians have called for increased funds. The fears are heightened by the fact that although the chief route of transmission seems to be through sexual contact, it is not yet known how AIDS spreads. So far, the disease has afflicted some 1600 people and about 165 new cases are added in the United States each month. In addition, about 125 cases have so far been reported in other countries. The incubation period is estimated to be from 6 months to 3 years.

It is, however, extremely difficult to predict how many new cases of AIDS there are likely to be because conditions favoring the spread of AIDS are rapidly changing. For example, bathhouses frequented by homosexual men have reported a dramatic decline in business, as male homosexuals forgo the sexual promiscuity that used to be an integral part of life for many of them. In New York, epidemiologists had predicted that the number of new cases of AIDS would double over the past 6 months, but the rate of spread has held constant at two new cases per day. New York City health commissioner David Sencer attributes the slowdown of the AIDS epidemic in the city to changing practices among homosexuals.

But AIDS is not attracting a surge of research dollars just because it is a deadly disease. It is also scientifically exciting. Richard Krause, an infectious disease expert who is director of the National Institute of Allergy and Infectious Diseases, explains, "People have been interested in AIDS from the very beginning [about 2 years ago]. They are interested because it is clearly a severe abnormality of the immune system. We all expect that once we unravel the abnormality, we will learn a great deal about how the immune system works and we will learn how to correct the immunological deficiencies in these patients and in patients with immunological deficiencies that are unrelated to AIDS." AIDS, in fact, is so enormously intriguing to all sorts of scientists, from immunologists, to cancer researchers, to infectious disease experts, that despite all the research money available, there is simply not enough to finance everyone who wants to get into the field.

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Since last October, the NIH has funded two batches of AIDS research applications and a third group of applications will be considered in August. Anne Thomas of the NIH notes that the institute routinely reviews applications by convening a committee of scientists to rate the various proposals. However, in the case of the AIDS proposals, she says, "We did try to cut down on the time of review by doing mail balloting. This is very unusual for us."

Not only were the NIH grants reviewed expeditiously but they frequently were for larger amounts than usual. The average NIH grant is for $120,000 per year. In contrast, R. Gordon Douglas of Cornell Medical Center received $243,271 for the first year of his 3-year grant to study the immunology and virology of AIDS patients. John Fahey of the University of California at Los Angeles was awarded $273,954 for the first year of a 3-year study of the use of chemotherapy and substances such as interferon to prevent and treat AIDS. Frederick Siegal of Mount Sinai Hospital in New York got $289,011 for the first year of his 3-year grant to study early defects in the immune systems of AIDS patients. Paul Volberding of the University of California at San Francisco was awarded $526,229 for the first year of his 5-year study of the immune systems of AIDS patients and apparently healthy persons at risk for AIDS. Arye Rubenstein of Yeshiva University received $506,685 for the first year of a 3-year study of infants born to mothers who were the sexual partners of AIDS patients. "I don't think people really are aware of the major awards that we've made," Thomas says.

In addition to these proposals, the NIH funds other research that is related to AIDS but comes through normal channels. This includes work on the human T cell leukemia virus, on infectious diseases that afflict AIDS patients, on immunodeficiencies, and on Kaposi's sarcoma. Then there are the scientists employed by NIH who are funded through the NIH intramural program. Many of these investigators have turned over their laboratories to AIDS research.

To further speed up the pace of AIDS research, NIH is starting a newsletter which will be disseminated to about 200 scientists starting in late July. The purpose of the newsletter is to keep the investigators informed of each others' results, especially negative ones. This way, they will be able to avoid fruitless approaches and experiments that do not work.

Not everyone, however, is happy with the level or style of NIH funding. Alvin Friedman-Kien of New York University, who is one of the discoverers of AIDS, believes NIH has moved too slowly in

funding AIDS research. To get research funds, Friedman-Kien accepted the offer of a friend of an AIDS patient to organize an auction. It was held on 12 April at the Leo Castelli Gallery in Soho where the 400 people who attended each paid $50 admission. A total of $55,000 was raised.

David Purtilo of the University of Nebraska had a grant application turned down because it was not given a high enough rating to be funded. But he continues to do AIDS research. "We're basically borrowing money," he says. "A lot has been from my own pockets. I'm a pathologist so I make a fairly good salary. I've also dipped into department funds."

Concern about AIDS has generated other funding sources as well, including an AIDS Medical Foundation, chaired by Mathilde Krim of Sloan-Kettering Institute for Cancer Research. Krim was an early advocate of increased funding for interferon research. "We decided to put this foundation together because we feel a desperate need for money. Instead of a fluke, AIDS is a real medical problem and there has been no money," she contends. Asked about the recent NIH request for research proposals, Krim claimed that from the time a scientist writes a proposal until the time he gets funds "takes easily 18 months. We feel we can't wait. We have dying patients on our hands."

The AIDS Medical Foundation has put together a list of prospective individual donors and is soliciting $1000 from each. The foundation also hopes to get $500,000 from corporations and foundations. Frank Hoffey, vice chairman of the foundation, says, "The early donations are encouraging. The promises are even more encouraging—this includes the whole spectrum from private citizens to corporate donors."

Still another new source of funds is the Cancer Research Institute in New York, a nonprofit organization, established 30 years ago, that describes itself as "devoting all its resources to the immunological approach to cancer." The institute has put out a call for grant applications and plans to award a total of $350,000 in maximum grants of $70,000 each.

Homosexual organizations also have dipped into their pockets to fund AIDS research. For example, the AIDS/Kaposi's Sarcoma Research and Education Foundation, which is a San Francisco organization that has only been in existence for 1 year, has begun supporting research. "We've raised most of our money from the gay community," says Edward Power of the foundation. "But there are many, many more people applying for research money than we have money to give."—**GINA KOLATA**

Review Panel Finds Federal Labs Lacking

White House Science Council report says shortcomings threaten quality, concentrates on management faults and recommendations for improvement

The White House Science Council report* on its year-long study of the federal laboratories is unlikely to sow panic in the ranks at the federal labs. The report is far from uncritical, noting, for example, that "a number of the laboratories do not meet the quality and productivity standards that can be expected of them." But its findings are expressed in very general terms and several of its key recommendations will be difficult to put into effect when it comes to specifics. The report, nevertheless, provides the Administration with plenty of ammunition to use to redirect the labs if it is determined to pursue the matter.

A key point is the panel's view that the labs operate best when they have well-defined missions. The panel found, however, that in many of the labs "the balance of work was often fragmented and unrelated to their main activity." The report says it would be better to reduce the size of a laboratory "to meet the real needs of its legitimate missions than to maintain its size with unrelated research projects" and notes that "If necessary, a laboratory without a mission should be shut down."

At a press conference on 15 July, President's science adviser George A. Keyworth II said that President Reagan had approved a plan to implement the report and asked the Office of Science and Technology Policy (OSTP), which he heads, and the Office of Management and Budget (OMB) to oversee the effort. A committee of the interagency Federal Coordinating Council on Science, Engineering, and Technology will be created to carry out White House wishes in the matter. The budgetary powers of the OMB, however, seem to offer greater leverage for change.

The review panel's assignment was to look at the 755 laboratories supported by the federal government, but the reviewers, not surprisingly, concentrated on the larger labs that account for a lion's share of the roughly $15 billion a year—a third of all federal R & D spending—allocated to the labs. These include laboratories the government owns and operates itself, such as the National Institutes of Health, National Bureau of Standards, and Department of Defense (DOD) and NASA labs, and those that are government-owned and contractor-operated, notably the big, multiprogram laboratories of the Department of Energy (DOE).

The review panel was chaired by David Packard, chairman of Hewlett-Packard and a former Deputy Secretary of Defense, and its membership was strongly representative of big science and big industry.† Since the Reagan Administration is on record as favoring a curtailment of the role of government, there was some expectation that the panel might call for a major transfer of R & D funds from the federal labs to industry and universities. The panel, however, went no further than the comment that "The balance in federal funding between Federal laboratories, universities and commercial firms may not be optimum and needs further attention."

In its discussion of the missions of the laboratories, however, the report did provide a rare example of chapter and verse when it noted that "The panel also concludes that some of the work done by the Federal laboratories could have been done as well, or possibly better, by private industry or by universities (e.g., engine designs, batteries and fuel cells, electric power transmission and distribution, design of specific airframe/engine

*"Report of the White House Science Council Federal Laboratory Review Panel," available from Office of Science and Technology Policy, Executive Office of the President, Washington, D.C. 20500.

†Other members were John Bardeen, University of Illinois; Allan D. Bromley, Yale; Donald S. Fredrickson, Howard Hughes Medical Institute; Arthur K. Kerman, M.I.T.; Edward Teller, Hoover Institution; Albert D. Wheelon, Hughes Aircraft.