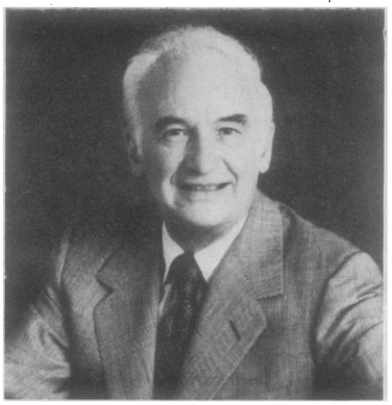
mizing the salutary effects. "In the interest of being sure that government money is not stolen or misused on foolish projects, there is now a good deal of pointless dissipation in costly preliminaries before a grant can be obtained," Ramo writes. "The fundings should be committed long-term and there should be a minimum of administrative burdens or trys for zero waste."



Simon Ramo

Ramo says that overregulation generally hampers corporate innovation. He suggests that all safety, health, and environmental regulatory agencies should be merged and restricted to narrow, avowedly negative investigation and advocacy. Ultimate regulatory decisions would be made by a politically appointed panel of "experts," following competing presentations by the regulatory agency and the corporation involved. Panels could be arranged by topic, such as nuclear power, food and drugs, occupational safety and health, and environmental pollutants. Ramo told *Science* that he doubts if such drastic recasting will ever occur, but that less sweeping reforms might still permit the separation of decision-makers from the advocacy of regulatory staffs. Currently, agencies such as the Federal Trade Commission and the Nuclear Regulatory Commission act as both prosecutor and jury, he says.

The trick in every technological undertaking is to strike the right balance of government and private participation. Ramo suggests that in some instances the government is gulled into actually doing more than it should, because of excessive timidity on the part of top corporate managers, or merely poor political judgment.

There are three recent instances of unholy industry-government alliance, he writes. The first is the cooperative program on auto research sponsored by Congress and the Carter Administration. "What, besides costly amateurism, can the government contribute in design, manufacturing, or marketing expertise" for the automobile, Ramo asks. The government also agreed to share the $65 million cost of developing a gas turbine auto by 1985. Ramo comments, "if General Motors had thought the approach a really good idea, it obviously would have elected to go ahead" on its own. The government's contribution "comes from taxing GM and other companies and purchasers of cars, and is diluted by the government's administrative costs in making the transfer." Another example is the recently enacted federal synfuels corporation. "This amounts to the government's removing financial backing from the industry professionals [through taxation] and putting it simultaneously into the hands of government amateurs," Ramo writes. The Energy Department should instead have agreed to buy a specified quantity of synthetic fuel for its own use, and then chosen among competing bidders for supply.

Government involvement in such projects could be avoided if large corporations were permitted to form consortiums for risky or expensive research projects, Ramo says. He suggests that an agency be formed within the Commerce Department to foster mergers. "It would seek always a healthy, profitable group of competitors, in contrast with the frequent situation where the nation has one satisfactory large operation plus a string of lesser ones, all of the latter . . . unable to afford adequate technological development."

In those instances where government subsidy becomes necessary, a more flexible patent policy would ensure that subsidized discoveries are brought to market. Instead of holding the patent rights to itself and distributing free licenses, the government "might take a free license . . . but assign all other rights to the inventor or the company that employs the inventor." Through a 50 percent tax on the inventor's net income, the government gets half of the profits from the invention anyway.

Finally, Ramo calls for renewed enthusiasm in both the private and public sectors for education and improvements in manufacturing and production technology, the area where the United States is falling furthest behind its overseas competitors. Even with considerable effort on all these fronts, Ramo says, "we should expect to produce only between a third and a half of future technological breakthroughs. For the future, it is not realistic to imagine we can lead in everything or even most things."

—R. JEFFREY SMITH

For NIH, Business as Usual

Controversial parts of a bill concerning the National Institutes of Health have been cast aside after several months of heated dispute between the biomedical community and legislators.

A standoff between two powerful legislators, Senator Edward Kennedy (D.-Mass.) and Representative Henry Waxman (D.-Calif.) culminated in a compromise bill that contained only routine and minor provisions of earlier versions. The result: business as usual at NIH.

The compromise measure was passed by voice vote in both the House and Senate during the first week in December.

Both Kennedy and Waxman gave up measures that were important to them. Waxman withdrew a proposal to give Congress new control over NIH in the form of periodic authorization. Kennedy, for his part of the compromise, withdrew a measure to establish a presidential advisory council dealing with biomedical research.

Many in the research community regard Kennedy as a hero because he stuck to his guns to oppose Waxman's proposal. Says one lobbyist, "I'm writing Kennedy to thank him for his work. The bill is an acceptable outcome."

Whether Waxman will eventually resurrect his bill is not clear. Although he will continue as chairman of the subcommittee on health and the environment, about one-third of his committee will not be returning in January—including two of his most vigorous supporters of the NIH measure. A subcommittee aide says, "Mr. Waxman is committed to the principles of the [original] bill, but we'll have to review the matter again."

On the Senate side, a subcommittee aide says that Kennedy "still feels strongly about the concept of a council. The issue is not dead." That, however, may simply be a signal to Waxman to expect another fight if the Congressman reintroduces his bill.

Much to the relief of NIH leaders, the compromise legislation did not change the agency's existing power to obtain appropriations with or without specific authorizations. Waxman had

proposed to abolish this power, requiring prior authorization for appropriations. Researchers contended that without it their work could be disrupted for lack of funds.

Among the routine provisions passed were extensions of the authorities of the National Cancer Institute, the National Heart, Lung and Blood Institute, and the National Institute of Arthritis, Metabolism, and Digestive Diseases (NIAMDD). The bill also dubbed NIAMDD with a new name—The National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

Primate Center Attempts Bailout Through Congress

The New York University primate center is struggling to rescue itself from imminent closure by asking Congress in its final hours of session for necessary money to keep the facility open.

The primate center, known as the Laboratory for Experimental Medicine and Surgery in Primates (Lemsip), is due to close 31 December because of mounting deficits and the loss of more than a half million dollars in contract support from the National Institutes of Health.

Lemsip's attempt at the last minute bailout is the most recent development in a history of strained relations between the center and NIH. Lemsip officials pin the blame for most of their troubles on NIH's division of research resources. Center officials charge that the NIH group has repeatedly played favorites with its own seven officially designated primate centers.

According to NIH's director of laboratory animal sciences program, John Holman, the institute dropped Lemsip's contract support because the money was only intended as interim funding. Furthermore, NIH wants to concentrate its resources on its own primate centers, he says.

The eleventh hour lobbying to win congressional funding is led by a center researcher. Three days before Congress was to adjourn 5 December, Eugene I. Goldsmith, chairman of the center's utilization committee and a professor of surgery at New York Hospital-Cornell Medical Center, spent a day on Capitol Hill drumming up support from several senators, including Jacob Javits and Warren Magnuson. Goldsmith left town with assurances that the measure, which allocates Lemsip $400,000 for 1 year, would pass. However, a Senate filibuster on fair housing has delayed action on several measures, including the Lemsip appropriation. Congress may stay in session until close to Christmas.

According to Lemsip director, Jan Moor-Jankowski, the laboratory has served as the model for primate centers of other countries such as Britain, France, Israel, India, and the Soviet Union. It is also one of two centers collaborating with the World Health Organization for research with primate animals.

Its current research projects include studies on the pathology and treatment of sickle-cell anemia and research on baboons with alcoholic cirrhosis.

Lemsip, located in Sterling, N.Y., about 40 miles north of New York City, houses about 450 primates and has already advertised the sale of some of its animals in anticipation of the closing. The facility is mainly used by investigators from the New York City area. More than half of its researchers are clinicians whose responsibilities to patients make it difficult to travel to distant primate centers for research.

Ever since Lemsip opened 15 years ago, its relations with NIH have never been rosy. NIH's centers emphasize strong intramural programs of basic research that are conducted by a nucleus of researchers. Lemsip has taken a different tack, stressing service projects that are jointly researched by scientists from several institutions.

Holman of NIH says, "Several advisory groups looked at the primate programs and recommended that Lemsip should be given low priority because it was service-oriented." As a result, NIH terminated Lemsip's $300,000 core contract that ended June 1979. Simultaneously, Lemsip lost a renewal bid on a $400,000 contract from the National Heart, Lung and Blood Institute, which is the subject of a pending lawsuit filed by New York University against the government. NYU alleges, in part, that Lemsip was unjustly denied the bid that was awarded instead to the Southwest Foundation for Research and Education in San Antonio.

Lemsip has applied twice for official status as a government center but was denied both times because it "didn't have a theme to its research," Holman says. Goldsmith notes, however, that official centers never had strong intramural programs when they opened.

New Watchdog Group Ponders Scientific Freedom

The prospect of government control over scientific communication has National Academy of Sciences president Philip Handler worried. As a result, he is forming a temporary committee to analyze it.

The issue of government restriction on the free exchange of scientific information has been raised several times during the past year. Last spring, for example, the federal government prevented scientists from Communist countries from attending two conferences. During the past session of Congress, Senate legislators considered a bill that would establish an agency to monitor the export of information on high technology.

"It's a problem of open, free conduct versus national security," Handler said in an interview. "I want to see if we can find guidelines on how these two can live comfortably together. I'd like the committee to tell us what else is brewing so we can anticipate unforeseen problems."

Since last spring, scientists have been perturbed by clumsy actions of the Departments of Commerce and of State, both of which denied visas to Soviet scientists who were to attend a meeting on computer bubble memory technology. Scientists from the People's Republic of China were required to sign statements that they would not divulge information gathered at the conference to other Communist nations. A week later, the government again denied visas to Soviet researchers to a conference on laser fusion.

More recently, the National Security Agency sought to restrict publication of studies in cryptography supported by the National Science Foundation.

Committee members have not yet been named nor a time set for the first meeting.

Marjorie Sun