

# News & Comment

## Politics of the Heart

*An NIH decision to cancel research on a totally implantable artificial heart has been reversed under pressure from Congress; some of the contracts are in the states of Senators on a key committee*

WHEN THE NATIONAL HEART, Lung and Blood Institute made a bold decision to cancel several contracts for studies of a total artificial heart, officials failed to take politics into account. In May, heart institute director Claude Lenfant concluded that the funds earmarked for a fully implantable heart should be transferred to development of a less complex assist device for the heart's left chamber (*Science*, 20 May, p. 976).

The left ventricle, which does 80% of the pumping, is the one most likely to fail. Furthermore, research on a left ventricular device is far enough along that human trials could begin within 2 or 3 years if development is accelerated, while a totally implantable heart is a decade or two away. Although the heart institute has spent approximately \$240 million on all types of artificial heart research since the 1960's, a number of problems related to the polymer chemistry of the heart, the force with which it pumps, and a safe, miniature power source remain to be resolved before a totally implantable heart is on the horizon.

Lenfant decided to go with the assist device, reasoning that progress there could be applied to work on a totally implantable heart later.

Senator Orrin Hatch (R-UT) did not take kindly to that decision. One of the best known artificial heart teams is the pride of the University of Utah in Salt Lake City. Furthermore, Hatch is up for reelection. An unexpected decision by scientists in Washington to withdraw funds was not welcome, especially in light of the fact that the contracts had just been made in January.

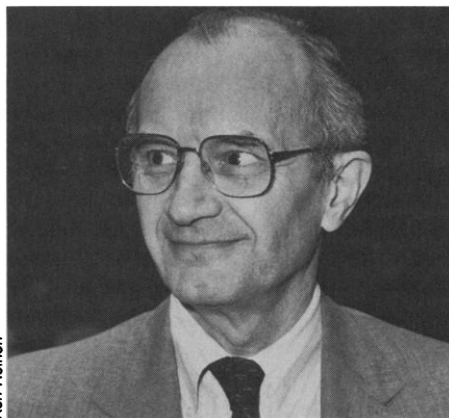
Hatch, ranking Republican on the Senate committee that oversees the NIH budget, called Lenfant to demand a change of heart. Hatch also drafted unprecedented legislation that would prohibit NIH from cutting existing programs by more than 10%. Senator Edward M. Kennedy (D-MA), chairman of the Senate's NIH budget committee, took Hatch's side. A Massachusetts company that is collaborating on artificial heart studies with the Texas Heart Institute is one of four groups slated to lose funding.

NIH saw the light. Informed sources report that once it was evident Hatch and Kennedy "were ready to play hardball,"

NIH director James B. Wyngaarden insisted that money for artificial heart research be restored. The sum total for this year is only \$3 million out of the heart institute's total budget of close to \$1 billion. Three million seemed a small price to pay to get Hatch to drop the threatened legislation.

"A provision requiring us to meet all existing commitments before making new funding would be devastating," Wyngaarden says. Although NIH seldom drops a program altogether, what is euphemistically known as "downward negotiations" are common in this time of tight budgets and many grants are cut more than 10% in the second or third year. Lenfant heartily concurs. "The legislation would have been a disaster," he says.

But there will be a price to pay if a clinical trial of the left ventricular device is to get



**Claude Lenfant.** A decision based on research priority brought on the wrath of Congress

started. "We may have a \$1-billion budget," Lenfant says, "but only \$63 million of that is for contracts. Now, to go forward with the ventricular assist, we may have to take money from the grants pool which means there may be 20 or more fewer grants this year." No final decisions will be made until the heart institute council meets in September.

The crucial question raised by this incident over the artificial heart is whether Congress is taking an increasingly heavy hand in what scientists regard as the micro-management of NIH by outsiders. It is hard to know, but many NIH leaders are not happy that they were forced to make such an

unambiguous and public retreat. And, although it is true that there are legitimate arguments pro and con over the scientific merits of the heart institute's decision, the fact is that it retreated for political reasons. Lenfant says he can live with that, but he would like now to meet with Hatch to talk about what will happen 3 or 4 years from now when the contracts expire. "I would like a real debate on the scientific priorities," Lenfant says—"perhaps a hearing."

A strong congressional hand in NIH affairs is not unheard of. In ways both large and small it has happened many times before. During the past decade, Congress has created several new institutes, in every case over the objections of the NIH leadership. The most recent unwanted addition was the National Institute of Arthritis and Musculoskeletal and Skin Diseases. The NIH leadership has consistently argued that new institutes are not necessary for good research but consume in administrative costs millions of dollars that could otherwise be spent on science.

But Congress and lobbyists for special causes like the visibility that goes with a disease-specific institute. It is probable that an institute for deafness will spring from the heights of Capitol Hill in the near future.

On a smaller scale, Congress has occasionally forced its will on the institutes, but with less public attention. For instance, when NIH wanted to phase out its cystic fibrosis unit on grounds that better research was being supported elsewhere through the grants program, a senator intervened on behalf of a Washington area couple whose child was being treated at the NIH hospital.

And when the institutes decided that they could fund only eight centers to study sickle cell anemia, congressmen from Ohio and Massachusetts put through an amendment requiring NIH to fund ten sickle cell centers in all. It is no surprise that the ninth center on the NIH priority list was in Boston and the tenth in Cincinnati.

The NIH's struggle for freedom from political interference has been going on for years. For its side, NIH has the power of scientific reasoning; Congress has plain power. It is not a level playing field.

■ **BARBARA J. CULLITON**