

## Why Trump's N.I.H. Cuts Should Worry Us

By HAROLD VARMUS\*\*

Last week I was in London to participate in a scientific symposium. During coffee breaks, many British colleagues asked me and other American visitors to explain the bewildering news that President Trump had announced his intention [to cut the budget for the National Institutes of Health](#) by 18.3 percent, about \$5.8 billion.

My answer to “What is going on?” did include some consoling reminders. A presidential budget request is a proposal, not a done deal. The actual fiscal year 2018 appropriation for the N.I.H. will be determined by Congress, which has historically provided enthusiastic bipartisan support for biomedical research. Although the N.I.H. has lost a substantial amount of its spending power gradually over the past decade, it has only rarely experienced a sharp decline in actual dollars and never of this magnitude. Furthermore, strong nonpartisan opposition to Mr. Trump’s proposal will come from many quarters, including advocates of research on specific diseases.

But it would be a mistake to be complacent about the president’s proposal, because it is likely to have real consequences. Yes, some have said that the proposed cut to the N.I.H. will be dead on arrival in Congress. But the president’s budget proposal is still important: The administration’s representatives will need to defend it at hearings, and it could be the starting point for negotiations among appropriators. It is not difficult to imagine a compromise in which the N.I.H. suffers a steep reduction.

To understand just how devastating a cut of less than 20 percent of an agency’s budget would be requires some understanding of how the N.I.H. operates. Very little of its typical annual budget is spent on the agency’s administration: The industrious, underpaid government scientists who manage the funding of the N.I.H.’s research programs consume less than 5 percent of its budget. Only a bit more, about 10 percent, supports the work of government scientists. In sharp contrast, over 80 percent of its resources are devoted to competitively reviewed biomedical research projects, training programs and science centers, affecting nearly every district in the country.

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The N.I.H. awards multiyear grants and contracts, but receives annual appropriations that must be spent that year. This means that at the start of each year most of its dollars are already committed to recipients of awards

from prior years. A budget cut of the size that is proposed would effectively prevent the awarding of new grants or the renewal of any that have reached the end of a multiyear commitment. Junior scientists, already struggling in a highly competitive atmosphere, may not get a chance to have an academic career. Senior investigators might need to lay off staff, disrupting research teams and leaving projects unfinished.

A substantial N.I.H. budget cut would undermine the fiscal stability of universities and medical schools, many of which depend on N.I.H. funding; it would erode America's leadership in medical research; and it would diminish opportunities to discover new ways to prevent and treat diseases.

Even if negotiations produce cuts less severe than the president proposes for 2018, it seems likely that he will not be any more respectful of the N.I.H. — or of science in general — in ensuing years. Even this year, he has proposed deep cuts for important science programs in the Department of Energy and other agencies, and his administration has shown a determination to radically reduce or terminate federal studies of climate change. Moreover, he does not appear to get or want advice on these matters from experienced people: He has appointed neither a White House science adviser nor a panel of outside advisers, both of which have been customary for presidents from both parties for decades.

What can be done by those who are appalled by these threats to our scientific enterprise and feel paralyzed by the apparent imperviousness of the administration to learning from others? Speak up, even when other important issues crowd the political horizon, and frame the issue properly: As I have learned from my own time at the N.I.H., this is not about Republicans versus Democrats. It is about a more fundamental divide, between those who believe in evidence as a basis for life-altering and nation-defining decisions and those who adhere unflinchingly to dogma. It is about a conception of national leadership that connects our economic success and our security to the generation of knowledge, and to the arts and sciences, not just to our military strength.

A budget proposal is a concrete manifestation of plans for the nation, a declaration of purpose. In confronting the president's assault on the N.I.H., all members of Congress face a moment that will define their character and the future of the country.

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\*\*Harold Varmus, a professor at Weill Cornell Medicine and a co-recipient of the 1989 Nobel Prize in Physiology or Medicine, was the director of the National Institutes of Health from 1993 to 1999 and of the National Cancer Institute from 2010 to 2015.