NIH

The Bubble Bursts

by our Washington Correspondent

THE crusades against cancer and diseases of the heart, lungs and blood vessels have finally taken their toll on other areas of biomedical research. The budget presented to Congress this week calls for large increases in the budgets of the National Cancer Institute and the National Heart and Lung Institute, but proposes sharp cutbacks in funding for all other institutes in the Institutes of Health. Moreover, the Administration has proposed that NIH training grants should be phased out and that federal support for the training of doctors should be sharply curtailed.

These proposals are likely to be fiercely resisted by Congress, which has consistently backed large increases in funding for biomedical research during the past few years, but there seems little prospect that Congress will be able to prevent at least those decreases which are due to be brought into effect immediately.

institutes of NIH is given in Table 1. The figures represent obligations not all of which will necessarily be spent in the year to which they are assigned. The situation is somewhat complicated by the fact that the appropriations bills for the Department of Health, Education and Welfare have not been passed into law because President Nixon twice vetoed HEW appropriations because he considered them to be inflationary. The totals given for 1973 therefore represent revised Administration proposals.

A large part of the cutback in 1974 funds results from the Administration's decision to phase out NIH training grants. The rationale behind this decision is that the grants were necessary to increase biomedical manpower at a time when budgets for biomedical research were increasing, but now that such budgets have been stabilized, demand for manpower will slacken off. The Administration also believes that scientists studying for PhDs will eventually earn enough money to pay back any loans they may need to finance their studies.

ties of the squeeze were announced earlier this month (see *Nature*, **241**, 83; 1973), and funding for them has already been withheld from the agency's budget for 1973. As for the 1974 budget, which was unveiled last week, NASA is being allowed new starts on only two relatively small satellites, and its total outlays will decline from \$3,423 million last year to \$3,062 million this year and increase to \$3,136 million in 1974.

As far as the Office of Space Science is concerned, the chief casualty is the High Energy Astronomy Observatory programme, which has been suspended for a review to see whether its objectives can be accomplished more cheaply. Dr Naugle, director of OSS, said last week that NASA is looking at the possibility of flying some of the HEAO experiments on an Atlas-Centaur rocket, and he hopes to have some definite plans to present to Congress during the budget hearings. The agency has, however, managed to preserve the Viking mission to make a soft landing on Mars in 1975, the two Mariner flyby missions to Jupiter and Saturn to be launched in 1977 and to keep the Explorer programme at about the same level as this year.

Funding for sounding rocket research is being held constant, at \$20 million, and the only increase in NASA's physics and astronomy programme is in payload definition for the shuttle, which is budgeted at \$500,000 in 1974, up from \$308,000 this year. As for the planetary programmes, no approved missions have been scrapped, but there is no money in the budget for the Venus-Pioneer programme. In the middle of the negotiations between NASA officials and officials of the Office of Management and Budget, the Venus-Pioneer programme was revamped to save a total of about \$50 million in the runout costs (see *Nature*, **240**, 177; 1972). But it seems that the play was unsuccessful. Asked last week whether the absence of money for the mission meant that it had been scrapped, Dr Fletcher said that NASA is still engaged in defining the programme, and hopes to get some money for it in the 1975 budget. The launch window for the first planned mission is 1977, however, which means that if it is approved, funds will have to build up rapidly.

As far as other parts of the NASA budget are concerned, the shuttle has taken a small cut, which will delay the first orbital flight by about nine months—from early 1978 to the end of that year. Skylab and the Apollo-Soyuz test project have emerged unscathed from the budget process. With Nixon's budgetary intentions now evident, NASA must be relieved that ESRO has finally decided to join the post-Apollo programme, and build the sortie laboratory.

Table 1 Obligations for the National Institutes of Health (thousands of dollars)

Institute	1972	1973	1974
National Cancer Institute	372,838	426,093	500,000
National Heart and Lung Institute	224,389	247,075	265,000
National Institute of Dental Research	42,366	40,333	38,452
National Institute of Arthritis and Metabolic Diseases	145,032	139,806	133,608
National Institute of Neurological Diseases and Stroke	111,557	105,539	101,198
National Institute of Allergy and Infectious Diseases	103,986	100,726	98,693
National Institute of General Medical Sciences	166,358	151,587	138,573
National Institute of Child Health and Human Development	112,515	109,551	106,697
National Eye Institute	35,555	33,797	32,092
National Institute of Environmental Health Sciences	25,889	25,889	25,263
Research Resources	130,211	99,019	88,632
Fogarty Center	4,357	3,926	3,586
Total	1,457,053	1,483,341	1,531,776

President Nixon's budget proposes that the budget of the National Cancer Institute should be increased to \$500 million in 1974, and that of the National Heart and Lung Institute should climb to \$275 million. Such sums would increase the budgets of the two institutes by \$74 million and \$18 million respectively, from the levels proposed for 1973. To offset these increases, President Nixon has recommended that about \$73 million should be cut from the budget requests of all the other research institutes in the present fiscal year and that these new budget levels should be reduced by a further \$43 million next year. The \$73 million reduction in the budget authority of these institutes in the present fiscal year results from the cut of \$11,000 million in overall federal expenditure ordered by President Nixon.

The overall picture for the research

So far, budgets for cancer research and for research into diseases of the heart, lungs and blood vessels have been exempted from the general budget freeze. Whether they will continue to be exempted when it becomes clear that a cure for cancer will not be found in the next few years remains to be seen.

NASA

Space Constraints

from our Washington Correspondent

FOR the second year in succession, the National Aeronautics and Space Administration has had to take a large cut in its budget and to curtail activities which, according to NASA administrator James C. Fletcher, were "important to the nation's space and aeronautics program". Most of the casual-