trols the pursestrings (see *Nature*, **241**, 81; 1973), the issue has not yet been resolved. It can thus safely be assumed that President Nixon will veto the HEW appropriations bill again this year if he considers it inflationary or, failing that, the OMB will simply not spend any extra money that Congress may add to the Administration's budget request.

Senator Edward Kennedy, the chairman of the Senate Health Committee, said in a speech on the NIH campus last week that "I will do everything in my power to reverse these short sighted health policies". In particular, he announced that he will soon introduce legislation which will change the statutory basis of the training grant programme, in an effort to force the Administration to keep the programme alive. Bills extending the programmes which the Administration wants to abolish are also in various stages of passage through the Congressional mill.

The Administration's response to the cries of anguish from the medical schools is to stand firm. The general principle that the Department of HEW has been propounding is that the federal government should not be in the business of directly supporting young scientists through training grants, but that the future supply of medical scientists should be left to market forces to determine. At present, the Administration argues that the US is overproducing medical scientists and in testimony before Senator Kennedy's subcommittee, for example, Caspar Weinberger, Secretary of HEW, has called the protestations of the medical schools and scientists "predictable".

PEER REVIEW

Open Attack

by our Washington Correspondent

Few things affect the biomedical community more directly than the way in which the National Institutes of Health disburses grants and contracts to medical researchers. It is thus not surprising that recent rumours and press reports indicating that the Administration is launching an attack on the very basis of the NIH granting system have been greeted with misgivings and alarm. The subject of the rumours and reports is a memorandum which has been circulating among top NIH officials for the past few weeks. Prepared by the Office of Management and Budget (OMB), the contents of the memorandum have been kept tightly guarded, but last week a copy found its way into the hands of Senator Edward Kennedy and he duly made it public.

It seems clear from the document that the biomedical community has every reason to be alarmed. The focus for the Administration's attack is the

peer review system by which grant applications are evaluated, and the memorandum suggests eight ways of "improving" it. They range from total abolition to relatively minor tinkering, but the thrust of the document is towards more targeted research and less of what the Administration has taken to calling "investigator-initiated" research.

The peer review system lies at the heart of the NIH granting process, and although nobody has suggested that it is entirely flawless, it is vigorously defended within NIH and in the rest of the biomedical community. It works like this. A grant application is initially examined by a study group of between 12 and 15 practising scientists working in the same field as the proposal. The study group approves or disapproves the proposal, assigning it a priority rating based on its scientific merit. The next stage is review by a national advisory council, which screens the proposal for policy and programme focus. Each institute of NIH has such an advisory council, consisting of scientific and lay members, and these councils pass recommendations on to NIH staff who in theory retain the final decision on which projects should be funded. In the past fiscal year, some \$1,481 million worth of grants and contracts came under the scrutiny of peer review groups in NIH and in the National Institute of Mental Health.

What disturbs the management types in the Office of Management and Budget is that the process seems to give little administrative control to officials of NIH or the Department of Health, Education and Welfare and that makes it difficult to target or direct research. To back up its case against the system, the OMB cites a number of unidentified studies made by the Executive Branch and by Congressional committees. The criticisms which the OMB says have been made of peer review fall generally into three categories. The first is the difficulty in gaining administrative control over the allocation grants, the second is the conflicts of interest which may arise when scientists who are members of study groups "determine the allocation of research funds that they also receive", and the third is that the system defines scientific merit or quality for itself, and is thus "not subject to objective measures of assessment".

Among the eight possibilities for changing the peer review system set out in the OMB memorandum are the following. The most drastic is total abolition of the system and complete reliance on administrative review—the memorandum describes such a step as "the ultimate in return to administrative control". But that would require legislation to remove statutory requirements for national advisory committees to approve grants and contracts. Less

drastic are suggestions which would involve retaining the advisory councils, but which would abolish the study groups. In their place, the memorandum suggests that NIH staff could be used for initial review of grant proposals, that consultants could be called in on an *ad-hoc* basis, or that reviews could be conducted by mail by randomly selected anonymous reviewers. To circumvent charges of conflict of interest, the OMB suggests that members of study groups should be changed every two or four sessions, and it also floats the idea of prohibiting members of advisory committees from receiving NIH research funds while serving on the committees or for a time afterwards.

The memorandum is now doing the rounds of NIH officials who will submit their comments to Dr Charles C. Edwards, the Assistant Secretary of HEW for Health. There is little doubt that the institutes will resist fiercely any attempt to scrap peer review entirely, and it seems that in any case there is little chance of that happening. If such a drastic step were taken, it would create much more of an uproar in the biomedical community than even the outcry that has greeted the recent cut-backs in funding and the abolition of training grants.

But, in the context of recent statements by Caspar Weinberger, Secretary of HEW, the trend towards more contract research in NIH, and the general policy of the Administration to concentrate on scientific research likely to have short term payoff rather than on more basic research, some alteration of the peer review system and tighter management control of biomedical research seems clearly on the cards. Weinberger said recently that he wants to "redress the balance" in research funding—"there has been too much emphasis on investigator-initiated research and not enough on directed research".

Members of the biomedical community are concerned, however, that the trend towards targeted research—as exemplified by the cancer programme—is going ahead at the expense of more basic research which could well produce key leads in the drive to understand the mechanism of diseases. The threat to peer review is one aspect of such a trend.

At that meeting, the Council of the Institute of Medicine instructed its President, Dr John R. Hogness, and the President of the Academy itself, Dr Philip Handler, to urge the Administration not to tamper with the peer review system without a thorough study. Congressional backing is also in sight for peer review, for Senator Edward M. Kennedy said last week in a speech on the NIH campus that he will soon introduce a bill to strengthen the system.