

Congress may threaten NIH autonomy

Washington

FEARS for the political independence of the National Institutes of Health have once again come to the surface. The cause of the trouble is a Bill now working its way through the House of Representatives that would require that the several institutes of the NIH are funded individually by Congress.

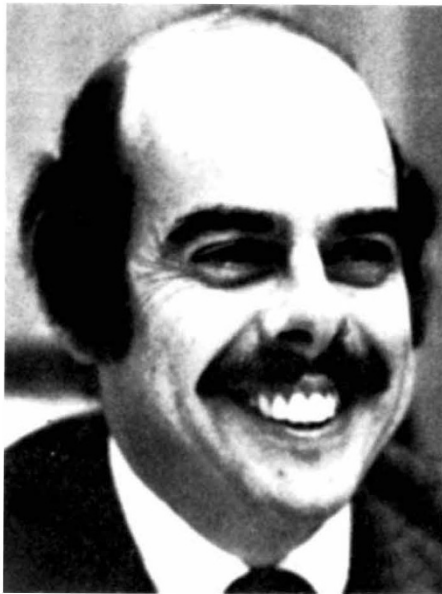
The scientific community is alarmed that the proposed arrangements would enable Congress — or individual congressmen — to attach unworkable provisions to financial legislation. Meanwhile, the administrators of the NIH have drawn the wrath of their political bosses at the Department of Health and Human Services (previously Health, Education and Welfare) by their attempts to head off the legislation in its earlier stages.

At one stage, it is widely reported, the Director of the NIH, Dr Donald Fredrickson, was told by the Secretary of DHHS, Mrs Pat Harris, to "shut up or get out". Dr Fredrickson has stayed put.

Relations between the NIH and its sponsoring department have never been easy. On this occasion, however, the House Bill may seem a lesser evil than a similar piece of legislation introduced in the Senate last year by Senator Edward Kennedy, chairman of the Senate Health and Science Subcommittee.

Kennedy's Bill would make all the institutes of the NIH separately accountable to Congress, but would also have imposed several other unpalatable conditions on the planning of medical research. One of these persists in the version of the Kennedy Bill soon to be considered by the Senate — the proposal that NIH strategy should be determined by a sixteen-member council appointed by the President.

Waxman proposes . . .



The Administration is staunchly opposed to this condition, but appears ready to accept that separate accountability will in future be required of the institutes. This position appears to have been reached only after an acrimonious dispute within the DHHS, where Mrs Harris was at first strongly opposed to some aspects of the House Bill.

The chief consequences of the Bill as it stands will be budgetary. (Two of the eleven institutes of the NIH, the National Cancer Institute and the National Heart, Lung and Blood Institute, are already dealt with separately in Congress.)

Budget strategy will be approved on a three-year basis, with a provision that



. . . Harris disposes

spending may be continued for a fourth year if Congress fails to act. Representative Henry Waxman, chairman of the Health Subcommittee, says however that there is no intention of using the new legislation as a way of cutting individual institute budgets, which will in any case be protected by separate appropriations legislation.

In spite of Mrs Harris's wrath, the NIH have won some concessions from the House of Representatives. A limit on the amount of research grant that could be approved by an individual institute council has been increased from \$50,000 to \$500,000. Moreover, there is a new provision for a fund of \$100 million to be spent on areas considered by the Director of NIH to be especially deserving of support.

NIH officials are still unhappy, however, with the increased role of externally appointed advisory committees in the planning of research strategy, while the extent to which the Secretary of DHHS may delegate responsibilities to the Director is, it appears, to be on the Secretary's say so.

Both the Senate and House bills are likely soon to pass in their respective chambers. In the conference that follows, it should become clear in what corner Mrs Secretary Harris is fighting.

David Dickson

Marine Pollution

Clean the Med

ELEVEN Mediterranean nations signed a treaty in Athens last Saturday (17 May) which commits them to clean up their rivers and sewage discharges, to make the Mediterranean a fit place to swim and fish in again. At present 90 per cent of the sewage from the 120 largest Mediterranean cities is poured into the sea untreated; and Italy, France and Spain sweep out their industrial pollutants through the rivers Po, Rhône and Ebro. Effective control of these land-based sources — the objective of the treaty — will cost some £6 billion, it is estimated. But 100 million tourists a year and a £300 million fishing industry will benefit.

The treaty is the sweetest fruit so far of the United Nations Environment Programme's Regional Seas Programme, which is run by Yugoslav marine scientist Dr Stjepan Keckes. He takes an optimistic view. "The British began talking about cleaning up the Thames 25 years ago. Today, salmon have returned to the Thames. I believe we can make the Mediterranean a much cleaner and safer place by the end of this decade."

The foundation of the treaty is both scientific and political: a network of laboratories around the Mediterranean coasts, many of whose staff have been trained and equipped through the Regional Seas Programme. Keckes has insisted on establishing uniform measurement procedures, and has used national laboratories (rather than a single, international expert team) to ensure the respect of national governments for their data. Keckes has also aimed the programme largely towards the definition of 'water quality objectives' rather than uniform emission standards; this has the advantage that, say, the relatively undeveloped North African coast can initially accept higher-polluting factories simply because there are fewer of them — so development is not penalised. The main burden will in fact fall on Italy, France and Spain.

The treaty will have to be ratified by six nations before it comes into force. Ratification would follow the passing of the necessary national legislation.

Two classes of pollutant are defined in the treaty: 'black list' and 'grey list' substances. Black list substances will be limited to very low emissions, because of their toxicity, persistence, or accumulation

in the food chain. These include mercury, cadmium, used lubricating oils, certain carcinogens and mutagens, and radioactive materials. Grey list substances will be admitted to the Mediterranean through strict licensing agreements which will take into account the ability of the local environment to absorb them. The grey list includes zinc, copper, lead, titanium, crude oils and hydrocarbons, pathogenic micro-organisms, and non-biodegradable detergents.

Atmospheric pollution of the sea is also covered by the treaty. Measurements on the Baltic have indicated that the air, replete with exhaust fumes, may be the principal source of organic lead in surface waters far from the coasts — but the air-sea interchange is very difficult to measure. The treaty has reinstated a deep-sea, air-borne pollutants monitoring programme which had been axed, on French insistence, a year ago. "The countries recognised it was a mistake" said Keckes.

The next step, says Keckes, is to shift the £400,000 a year research programme, from one largely for training and equipping laboratories, to one of specific common research and data handling — which will be a five- or ten-year programme.

Precise environmental quality objectives, emerging from the research programmes will be defined in time for ratification. A meeting in October is expected to set the first: for bathing and shellfish growing waters (largely a matter of micro-organism levels), and for mercury in shellfish.

Robert Walgate

Research posts

Jobs for the Jugende?

WEST German post-doctoral and just pre-doctoral scientists, searching like others the world over for scarce research positions, will shortly find another 175 posts a year open to them — if the federal and regional governments approve.

The Arbeitsgemeinschaft der Grossforschungseinrichtungen (AGF), an association of the 12 major research centres outside the universities, has asked the governments to back a proposal to create 700 new posts over 4 years, each lasting three to five years, at a total cost of about DM90 million (£22 million). This represents little more than an annual 1% addition to the current AGF budget.

Professor Herwig Schopper, president of the AGF, said this week that the proposal was designed to cope with a national population bulge — which is beginning to swell doctoral numbers at a time when most post-doctoral posts are already filled. "We don't want to lose this

talent just because of a freak of demography" he said. The programme fitted well with another — under discussion in the Ministry of Universities — to create more junior university positions over the same period.

In making the proposal, the AGF (whose members include, for example, the high-energy physics laboratory DESY, and the German cancer research centre at Heidelberg, the DKFZ) has taken account of the age profiles of its member laboratories. An official said this week that fewer than one scientist in a hundred currently retires each year from AGF staffs, releasing fewer than 40 posts. Another 30 are freed by scientists moving to industry, but the total of 70 vacancies is far too few to retain a stable age profile in the laboratories.

However, said the official, retirement rates will begin to rise rapidly in five years. By 1992 retirements are expected to reach 7% a year, the equivalent of 280 posts. "So we just have a valley to bridge."

The proposed appointments would be made through the usual recruitment procedures of AGF members, but specified subjects will be preferred. Thus energy research would receive 175 posts; nuclear and subnuclear physics 140 posts; life sciences 140 (with appointments principally to the DKFZ, to the Gesellschaft für Biotechnologische Forschung, and the Gesellschaft für Strahlen und Umweltforschung); information technology 105; materials science 70; aerospace 35; and technology assessment 35.

The Federal science minister, Herr Volker Hauff, has approved the scheme, but it must now go to the cabinet for a decision. And as the regional (Länder) governments support AGF laboratories to 10% of their budgets, the AGF must seek their approval also. Schopper is confident of success, but he does not expect a decision before the federal elections later this year.

Robert Walgate

Innovation

Biotechnology boom at NRDC

BRITISH biotechnology may benefit from the impending change of managing directors at the National Research Development Corporation. Dr James Cain will succeed Dr William Makinson on 1 June, and is already talking of tripling the corporation's spending on biotechnology in the coming three years.

Dr Cain, a 57-year-old biochemist, is at present head of the NRDC's biosciences group, which contributes four-fifths of the corporation's £18 million licence income.

The NRDC's major earners are the cephalosporin antibiotics — developed by Professor E P Abraham of the University of Oxford — which, said Cain last week, have already earned NRDC at least £80 million through licensing agreements set up by the biosciences group since 1959. Pyrethroid insecticides are "already into millions".

Biological projects, based on patents acquired from university and government laboratories, have thus become the NRDC's bread and butter. They also appear to be good business: the cost of developing an innovation from a successful patent to the point at which it can be licensed tends to be less for biological than for hardware projects.

Investment in hardware projects still dominates the NRDC's investment. At the last count, there were 229 active projects in fields such as instrumentation and engineering, compared with only 18 in the biological sciences. The corporation's total investment in biological projects amounts to £1.5 million, a mere tenth of the NRDC's total investment. Of this £600,000 has been committed to genetic engineering. Cain hopes the £1.5 million will be doubled or tripled in the next three years.

Cain says that the corporation has been talking to industry for some time about biotechnical projects, and one involving crop plant development "is being actively followed up", with a decision possible within six months. On the academic side, "people are coming to us with projects once a month", a vast increase on say five years ago. "We've been getting experience of genetic engineering and want to increase our exposure" he said.

Most of the NRDC's projects involve collaboration with industry, but the most natural partner for many joint ventures, the pharmaceutical industry, is so used to carrying out high-risk projects on its own that experience has been disappointing. So the corporation is looking to the food industry and elsewhere in biology-based industry where indigenous research tends to be short-term.

Cain acknowledges that NRDC spending will continue to be higher in the physical sciences because such projects tend to call for the building of expensive large-scale prototypes. But the time may come when NRDC will have to build biotechnical pilot plants, which will call for larger resources. "It's quite easy to imagine a £1 million project with industry", he says, "which aimed to go commercial in three or four years."

The new interest in biotechnology does not however mean that the NRDC's traditional interests will vanish. In particular, the corporation will continue to be heavily involved in computing machinery and in computer software. But for the time being, it seems to have an edge in biological engineering.

Robert Walgate