NIH budget

Reagan vetoes busybody bill

Washington

EFFORTS by the US Congress to create a new arthritis institute and a new nursing institute at the National Institutes of Health (NIH) have been blocked. President Reagan last week vetoed a controversial NIH reauthorization bill passed in the last few days of the 98th Congress which, besides creating the new institutes, would have required the appointment of disease prevention directors and a formalized NIH policy on matters as different as the use of experimental animals and investigation of scientific fraud. Because Congress is not in session, the so-called "pocket veto" cannot be overridden. In his memorandum of disapproval, the president said the bill would create expensive new organizations, institutionalize over-specific research and place undue constraints on executive branch authorities.

The bill, which had received wide bipartisan support in Congress, was the culmination of a two-year effort by Representative Henry Waxman (Democrat, Los Angeles) to introduce more congressional control over NIH. Waxman last week described as "callous and insensitive" the president's veto of a bill that would "improve our ability to find a cure for cancer, arthritis and stroke".

The reaction at NIH, however, is likely to be one of unmitigated relief. While some of the bill's provisions would merely have added statutory authority to guidelines already in use, others were seen as unwarranted meddling in NIH's internal affairs. The creation of the new institutes was particularly opposed, on the grounds that it would introduce new administrative costs to little effect. The president's veto does not threaten existing NIH programmes, which can continue to operate (as they have since 1980) under the general authority of the Secretary of Health and Human Services to conduct and support research. Congressional aides said after last week's veto was announced that there is still widespread interest in reauthorizing NIH and that the veto will dissuade a future Congress from moving to pass similar legislation. Some predicted that parts of the now-dead bill will be resurrected in a new legislation next year.

The compromise version of the bill that eventually emerged from a House–Senate conference represented a considerable watering-down of Waxman's original proposals. The requirements placed upon institutes to undertake specified kinds of research would nevertheless have had an immediate impact in some instances. The bill would also have established a plethora of statutory bodies to oversee research in different areas. Present regulations on *in utero* fetal research would have been encoded in law, as would the requirement for peer review of research grants.

The bill had included a provision to set up a Congressional Ethics Advisory Commission to study human genetic engineering and fetal research, to have been modelled on Congress's Office of Technology Assessment. Despite last week's veto, preparations to establish an advisory committee of some sort are going ahead: it is not yet clear what sorts of legal authority are required for different functions of an advisory committee.

One of the few parts of the authorization bill that NIH is sorry to lose is that relating to use of experimental animals. The requirements were almost identical with new guidelines already being implemented by NIH, but a legal obligation to follow the guidelines would have allowed NIH to defend itself more strongly against organizations protesting about the use of animals in research.

The separate appropriations bill for NIH also passed recently by Congress is still waiting for the president's signature. Congress awarded NIH $5,100 million for fiscal year 1985, an increase of 14 per cent on the previous year, considerably more than the administration's request. There is however little reason for the president to veto the appropriations bill, because a back-up appropriation for NIH included in the continuing resolution provides an identical sum. For the time being, at least, it seems that NIH has succeeded in both having its cake and eating it.

Tim Beardsley

Molecular science

Japan's next target — biology

Tokyo

A THREE-YEAR project to develop in Japan a whole new set of automated tools for molecular biology and cancer diagnosis is about to be launched. The Science and Technology Agency (STA) hopes for rapid government approval for a plan to apply Japan's skills in electronics and precision manufacturing in this field.

Overall expenditure for the project is expected to run to around Y2,000 million ($8 million) with Y618 million ($2.6 million) allowed for in the first year. The money will come from the special coordination funds of the Council for Science and Technology, Japan's highest science policy-making body.

Announcement of the project comes just as Prime Minister Yasuhiro Nakasone has agreed to give top priority to cancer research in next year's budget. Since he gave his approval to a ten-year programme for cancer control last year, several of the science ministers have announced new plans — and new funds — for cancer research (see *Nature* **310**, 264; 1984). Now, Nakasone seems to have given tacit approval to an overall 17.8 per cent increase in funds for the next fiscal year.

The overall chief of the new STA project will be Dr Toyozo Terashima, deputy director of the National Institute of Radiological Sciences. There are two main themes: technologies that can directly facilitate research into the molecular biology of cancer, and technologies of use in the diagnosis and therapy of cancer.

In the first theme, attempts will be made to speed up several routine but time-consuming procedures of the molecular biology laboratory. A good part of the research will be performed by industrial companies, in cooperation with university and government research institutes.

Watch-makers Seiko will continue development of an automatic DNA sequencing machine (*Nature* **307**, 193; 1984), while film-makers Fuji Photo will improve their new gels for DNA electrophoresis. The chain of events may then be completed by electronics giant Hitachi, trying to develop computerized equipment to read the gel electrophoresis pattern.

Meanwhile, a large chemical manufacturer, Toya Soda, will develop equipment to extract specific DNA fragments from a DNA mixture and tackle the difficult task of building an automatic amino acid sequence analyser. And Japan Electron Optics Laboratory will attempt to develop technology to analyse the three-dimensional structure of protein–DNA complexes using electron beams.

Another goal is to find new ways of introducing DNA into cells: earlier this year, a group at STA's Institute of Physical and Chemical Research (RIKEN) developed a system for opening tiny holes in cell walls using a very brief laser pulse. In the one-second interval before the hole closes spontaneously, DNA from the surrounding medium can enter the cell. Further new systems, using both viruses and very short high-power electric pulses, are now to be tried out by a pharmaceutical company, Dai-chi Seiyaku. RIKEN and the Tokyo Metropolitan Institute of Medical Sciences will also try new techniques to extract and purify very small amounts of protein produced with the proliferation of cancer cells. New assay cell culture systems for oncogenes will be developed at the Tokyo Medical and Dental University.

In the second part of the project, RIKEN and the National Institute of Radiological Services will commence work on the analysis and synthesis of glycoproteins located on the surface of cancer cells, and the Electrotechnical Laboratory on computer tomography for the detection of cancer. Finally, the huge Sumitomo Electric Company is to seek ways of speeding up production of monoclonal antibodies.

Alun Anderson