

clinical research", an NIH spokesman said, adding that biopsy analysis had been included.

Describing the NCI charges as "outrageous", a research colleague of Dr Straus, Dr Jeffrey Ambinder, insisted last week that only conventional treatment had been used. He read a statement from Dr Straus, who was not available for comment, comparing NCI's claims to a situation in which, if a cancer patient is given an aspirin and then finds the cancer has gone away, "then it should have been submitted to a review board".

NYMC has already set up a subcommittee of its Institutional Review Board to investigate whether the treatment should have been submitted for its approval. Although the subcommittee was established before the site visit by the NCI team, it will now have to decide whether to concur with the visiting team's conclusion that the treatment should have been classified as experimental, or to accept Dr Straus's argument that prior approval was not required.

NCI itself has referred the matter to its Office of Protection from Research Risks to see if any further action should be taken. The institute's verdict on the progress of Dr Straus's research is also likely to generate controversy, since the decision to withhold the third year of the grant — amounting to about \$300,000 — can be taken to appeal by Dr Straus and/or the medical college.

Explaining his actions in the letter to Dr Connolly, Dr DeVita says the decision to withhold the grant followed the visiting team's conclusion that "minimal progress had been made on both the pre-clinical and the clinical cytogenetic studies".

Dr Straus, described by Dr Ambinder as a "brilliant scientist" whose "ethics are beyond reproach", says in his statement that the criticism is incorrect, and that his group had not been supported to carry out the studies which the visiting team says should have been done. Dr Ambinder also defended the research group's use of tritiated thymine, to study the kinetics of cancer cells, which he says had been approved of by the three previous visiting teams but criticized by the last team which visited in November.

Dr Straus is already suing five of his former research colleagues at Boston University for \$33 million, denying the allegations that he had been responsible for the falsified data in the earlier study. Last week he and his lawyer, Andrew Good, were taking depositions from witnesses to establish the basis for his charges of conspiracy.

A full report on the Boston incident is expected to be completed shortly by the Department of Health and Human Services. Meanwhile, staff members of the Senate Health Committee, which was strongly criticized for its treatment of Dr DeVita last summer, said last week that the committee had no further action planned, but was watching events. **David Dickson**

Polish students

Workers help

Help is urgently needed for Polish students penalized under the martial law regulations, according to a clandestine Solidarity bulletin from the Krakow region. The dissolution last month of the Independent Students' Association (NZS) has left the students without any organization to defend them, just when the new rules of conduct for the universities make such protection more necessary than ever. Several former NZS activists have already received prison sentences for allegedly organizing resistance to the military takeover; scores or hundreds more are in internment camps. Those who sign the necessary oath of loyalty and return to their studies face penalties ranging from compulsory "socially useful work" to expulsion and military service even for such minor infractions as cutting lectures or being on campus after hours.

The bulletin notes that the staff of the University of Warsaw have already organized a system of financial and legal aid for students, and are also trying to provide accommodation for those students who have been expelled from their hostels. A similar initiative seems to be under way in Poznan. There, on the declaration of martial law, the deans and deputy deans of the various faculties apparently resigned as a body, but had returned to their posts last week, apparently for the sake of the students, in advance of the riots at the end of the week.

The Krakow bulletin marks an important new development in the Polish democratic movement. Before 1976, there were protests by workers and by intellectuals (including students) but for different causes and on different occasions. After the food-price demonstrations of June 1976, however, intellectuals and students organized legal and material aid to those affected by the wave of police repressions, and were themselves frequently heavily penalized for doing so. This is the first time, however, that a workers' organization has spoken out in defence of intellectuals and students.

The bulletin, which describes the victimized students as "our best young people", coincides with a major propaganda offensive designed to break the ties between workers and intellectuals which developed after 1976 and which are consolidated by Solidarity. At the end of January, Michal Hebda, the rector of Radom Engineering College, whose "undemocratic" appointment triggered the nationwide student strikes last autumn, said on Warsaw radio that the combination of student and worker protests showed that it must have been organized from abroad. Many intellectuals in internment have been creamed off from the general camps and transferred to somewhat more comfortable accommodation.

Most surprising of all is the remark attributed to deputy prime minister Mieczyslaw Rakowski, editor in chief of the weekly *Polityka*, which is due to resume publication shortly. He is reported to have told a staff briefing conference that in his opinion the intellectuals in Solidarity were directly responsible for the imposition of martial law. What finally tipped the balance, he claimed, was the declaration by the Conference of University Rectors that its members should have the right to vote for the Minister of Science, Higher Education and Technology. **Vera Rich**

British anti-nuclear campaign

Pros not all con

The two British veterans of disarmament, Lords Brockway and Noel-Baker, gave their blessing last weekend to a campaign to mobilize British professional opinion against nuclear arms. But the conference at Imperial College, London on 12 February, planned by the World Disarmament Campaign, demonstrated that only the anti-nuclear profession is sure of where it stands.

The theme of the conference was that professional people and even professional organizations have a responsibility to inform the general population of the present danger from the accumulation of nuclear weapons, calculated by Dr Frank Barnaby, until recently director of the Stockholm International Peace Research Institute, as the equivalent of 3 tonnes of TNT per head of the world's population.

British professional organizations were not formally represented at the conference, although Mr Jack Chambers, president of the National Union of Teachers, claimed the backing of an organization with 250,000 members for his demand for a place in the school curriculum for the "teaching of peace". In passing, he protested at the complaints from newspapers that teachers were guilty of "political indoctrination" by telling their students of their "profound distaste for the present levels of armaments" and of the British government's "scandalous support for the United States government on El Salvador".

Dr John Dawson, head of the division responsible for professional questions at the British Medical Association, gave a more temperate account of the association's study of the effects of a nuclear attack on Britain, which should be complete in about a year. He explained that the association's objective was to enable members of the medical profession to make up their own minds. He provoked cries of "Shame!" from some among the audience by saying that the British Medical Association had "no policy" on nuclear weapons, and the ridicule of a psychiatrist from the north of England who asked what purpose could be served by a solemn study of the effects of nuclear weapons on the

British water supply if the recent cold weather had caused water to be rationed in some places.

The association's study has in part been occasioned by a resolution passed at last year's annual representative conference. That circumstance is counted as a success for the Medical Campaign against Nuclear Weapons, which now claims 1,400 members, perhaps 2 per cent of registered physicians in Britain. Other professional anti-nuclear groups may follow this example.

Architects for Peace has similarly taken the initiative by asking the professional organization whether architects can ethically help with building missile sites or underground bunkers, while both the physicians and the Nursing Campaign against Nuclear Weapons intend to make fun of the plans worked out by central and local government for dealing with the consequences of a nuclear attack.

Mr Michael Walsh, chairman of the nurses' organization, produced a scathing criticism of the official British policy that medical personnel should be dispersed to rural areas if there should be advance



warning of a nuclear attack, and that the urban population should rely on "self-help". One participant at the conference contributed the intelligence that a local authority plan for dealing with the aftermath of a nuclear attack on the north of England has prudently qualified the advice that the dean of the local medical school should be consulted with the phrase "or his representative".

The surprise of the conference was the declaration by General Michael Harbottle, now secretary-general of the World Disarmament Campaign, that there are now almost enough ex-military men like himself to form an organization called "Generals for Peace". More predictable was the steady undertone of criticism of the British and American governments, accused by Ms Norma Turner ("Journalists against Nuclear Extermination") of assailing the media with "anti-Soviet pro-nuclear propaganda". Several speakers considered that the meeting early in June of the NATO

council that President Ronald Reagan will attend had been arranged to distract attention from the Second Special Assembly of the United Nations on disarmament, while General Harbottle thought it possible that Queen Elizabeth II's political independence had been compromised by her invitation to the president to dine at Windsor Castle on 10 June.

The conference was attended by 430 people, more than a third of them from the medical professions. About ten per cent of the participants were scientists, among whom Dr Tom Kibble, professor of physics at Imperial College and vice-chairman of "Scientists against Nuclear Arms", raised the provoking (and unanswered) question of how and when to raise with students, "very often the military technicians of tomorrow", the propriety of taking jobs in military research.

Rights on DNA

Brussels

A move to widen the scope of the European Human Rights Convention to include the dangers of genetic engineering provides further evidence of the unease which recombinant DNA work still arouses in Europe. A report adopted by the assembly of the Council of Europe in Strasbourg on 26 January included eight recommendations on the legal, ethical and social issues raised by the prospect of interference with human genetic inheritance. The rapporteurs, Lennart Petterson (Social Democrat, Sweden) and Bjorn Elmquist (Liberal, Denmark), based their recommendations on the findings of a public parliamentary hearing last May.

The right to a genetic inheritance free from any form of engineering should be included in the European Human Rights Convention, say the Strasbourg legislators. Exceptions include the treatment of genes to eliminate genetically transmitted diseases but this must only be done with the consent of those concerned or, for children or a fetus, the consent of the parents.

The recommendations also stress the need to monitor the harmonization of safety regulations applied to recombinant DNA research in Europe, and suggest that this should be done by the European Science Foundation. EEC's draft legislation on the registration of DNA research should also be examined to see whether it should be applied throughout Europe. Finally, the Council of Europe proposes to study how microorganisms which have been modified by recombinant DNA techniques can be patented.

Jasper Becker

Chemical warfare

Protest plans

Washington

Twenty-five religious, environmental and arms control groups have formed a coalition to lobby against the Reagan Administration's plans to resume the production of chemical weapons after a 13-year moratorium.

The coalition, being organized by the Washington-based Council for a Livable World, was announced last week, just after President Reagan had removed the last remaining legal barrier to resumed production by declaring that the production of nerve gas weapons was "essential" to the national security of the United States.

This in turn coincided with a request from the Reagan Administration for a budget of \$705 million for chemical warfare activities conducted by the Department of Defense for the 1983 fiscal year, which begins on 1 October. \$77 million is also being added to the budget for the current year, which will now total \$532 million — and compares with the \$111 million being spent only four years ago.

Included in the 1983 request, most of which will be spent on improving defensive equipment and apparatus, is \$30 million which will be used to produce "binary weapons" at the Pine Bluff Arsenal in Arkansas. Congress has already agreed to spend \$20 million to build the production facilities, which are now expected to be completed by mid-1983.

According to Defense Secretary Caspar Weinberger, two types of chemical weapons will be produced: 155 mm artillery shells and Big-Eye bombs. Both will be based on the binary concept, in which two non-lethal chemicals are stored separately.

President Reagan's announcement had been widely expected, following pressure from the US military to replace the existing stockpile of chemical weapons, and widespread claims about Soviet superiority in chemical weapons as well as the alleged use of "yellow rain" in South-East Asia. (*Nature* 293, 327; 1981).

Two years ago, the Pentagon's Defense Science Board, chaired by Dr John Deutch of the Massachusetts Institute of Technology, recommended a start on the production of binary weapons and that the Department of Defense should prepare for a major increase in its chemical warfare programmes. The department is said to be planning to spend about \$1,400 million in 1984, and even more later.

Supporters of the chemical weapons programme argue that it is necessary to persuade the Soviet Union to speed up the chemical disarmament treaty, which the United States and the Soviet Union have been discussing in Geneva since 1975.

In a letter to the leader of the House of Representatives, Mr Tip O'Neill, President Reagan argued that the resumption of production, which had been banned by