

all universities to teach engineering, and grant *Diplômes d'ingénieur*, previously the jealously guarded preserve of the *grandes écoles*, and not previewed in any ministry text so far.

The next step, however, is the presentation of a near-final text to the advisory Conseil National de l'Éducation Supérieure et de la Recherche (CNESER, the national council for higher education and research) which was scheduled for Thursday 25 November — the first day of the planned SNE-Sup strike. However, the unions have requested that the CNESER meeting be postponed, and on Monday a new date had not yet been arranged. CNESER is reported to be very closely

divided between radicals and conservatives, and may vote for a text close to Jeantet — which would set the cat among the *grandes écoles* pigeons, unless Savary were entirely to ignore CNESER's advice — something that would be politically inadvisable. CNESER, in fact, along with M. Payan himself — who is *ex officio* president of CNESER — may be the main element of volatility in a situation long since frozen by the traditional conflicts between the *grandes écoles* (broadly on the right) and the universities and unions (broadly on the left). Whether the strike will influence either CNESER or Payan is still to be seen.

Robert Walgate

West Bank universities

Request for pledge withdrawn

The Israeli government has abandoned an earlier regulation demanding that foreign lecturers working in universities and colleges on the West Bank should sign a pledge not to assist the Palestine Liberation Organization (PLO). The announcement that the regulation would be suspended (and unofficial hints that it could be formally rescinded in the near future) came a few days after a swingeing attack by US Secretary of State George Shultz, who last Thursday called the regulation a threat to academic freedom reminiscent of the McCarthy era in the United States.

Israeli officials nevertheless deny that the events are related. Instead, they suggest the relaxation was made possible by quiet diplomacy between the civil administration of the West Bank and the university authorities. The only purpose of the regulation, they stress, had been to preserve the function of the universities as centres of higher learning and to avoid their politicization.

It is clear, however, that the Israeli government was somewhat taken aback by the strength of the international reaction to its move. One senior official reportedly expressed "surprise" at Mr Shultz's appeals to Israeli academics to join in the protests. In fact, the Israeli academic community has on several occasions come out in support of the West Bank universities — in November 1981, when the Bir-Zeit University in Ramallah was temporarily closed, a group of lecturers and research students at the Hebrew University of Jerusalem attempted, perhaps cosmetically, to organize fill-in courses for students who otherwise would have had to interrupt their studies.

The constitution of the West Bank universities and colleges under Israeli administration is complex. At the time of the Israeli take-over, there were three such establishments, Bir-Zeit (near Ramallah), El-Najah (near Nablus) and the Kadouri Agricultural College (at Jenin). These were accorded full academic status by the

authorities (Bir-Zeit College became a university in 1975) and two further colleges were founded, the Islamic College in Hebron and the (Catholic) College-Frères (now the University of Bethlehem). All these are financed, indirectly, by the Israeli government, through its budget for the occupied territories, which is distributed by the civil administration of the West Bank.

Just how many lecturers refused to sign the pledge is not clear — Mr Shultz put the figure at around 120, of whom, he said 22 have already been expelled from Israel and 30 others suspended from teaching, while others were told that they would be required to leave the country when their three-month tourist visas expired. (This latter category presumably refers to new arrivals who took up their teaching posts in October this year). The Israelis, on the other hand, claim that only three lecturers were actually expelled, and that the rest were merely told that their residence permits were being withdrawn. They admit, however, that even to the newest arrivals the pledge was something that they had not foreseen when they accepted the post, and that the lecturers' refusal to sign the pledge was inspired not by a desire to assist the PLO but as a matter of principle.

"Freezing" the pledge, in the case of lecturers, however, could make difficulties with other foreign workers on the West Bank, all of whom, a government spokesman announced last week, were required to sign the pledge and had already done so in "hundreds if not thousands".

Vera Rich

International conferences

Anti-Israel moves

Rehovoot

Recent events in Lebanon threaten seriously to undermine relations between Israeli scientists and their colleagues overseas. This is one reason why Israeli scientists were relieved to hear from Weizmann Institute physicist Shalheveth

Freier that despite a prolonged and often acrimonious debate on events in Lebanon at the recent Pugwash meeting in Warsaw, the organization did not adopt an anti-Israel resolution.

Instead, Pugwash adopted, after a full 20 hours of discussion in working group and plenary sessions, a far more balanced resolution than seemed possible at the outset. The resolution called for "the withdrawal of all non-Lebanese forces and the creation of a strong Lebanese government acceptable to all factions".

Freier's reception in Warsaw was thus less hostile than that of many other Israeli scientists attending international meetings in recent months. Thus one young Israeli neurobiologist arrived at a scientific conference at a French university to find a sign posted outside the cafeteria which read: "The Israelis are assassins". Many delegates echoed this view and flatly declared that they would never visit Israel again so long as the country remained "aggressive".

Strangely enough, the neurobiologist (from Tel Aviv) says he found greatest understanding from a Syrian scientist who had once lived in the city of Homs, and who was all for "smashing the PLO and the Syrian Army", presumably because several members of his family had been among the 10,000 people killed when the Assad government put down an uprising of devout Moslems in that city last year.

Some Israeli scientists have even found themselves "disinvited" from meetings during the summer and autumn. One chemist, for example, has received the following communication from a colleague in Europe: "The current situation in Lebanon is causing deep concern here. In particular, the recent actions waged by Israeli forces against the city of Beirut appear cruel and unnecessary. For that reason my group is unanimous in feeling that we cannot maintain your visit here as planned. Please understand that this is not directed against you personally."

In his reply, the Israeli chemist said that his erstwhile hosts had "the unquestionable right" to cancel the invitation, but he wondered whether they had also boycotted Iraqi scientists in the wake of their government's brutal attacks on the Kurds, Palestinian Arab scientists after the massacre of Israeli bus passengers near Tel Aviv and Israeli schoolchildren in the Galilee, or Soviet scientists because of events in Afghanistan and Poland.

Many overseas researchers seem also to have boycotted conferences held here in recent months. Thus there were only 150 participants (instead of the expected 250) at the International Symposium on Recent Developments in Perinatal and Childhood Infections and 800 participants (against 1,000 expected) at the Sixth International Congress on Hormonal Steroids. Many bodies that were thinking of Israel as a conference site for 1986-88 have also, after the furore over Lebanon, altered their plans.

In this situation, Israeli scientists find themselves fighting two battles at the same time. On the one hand, they are trying to convince their overseas colleagues that the common judgement of Israeli policies is too harsh. On the other hand, most of them are trying to convince their fellow citizens of the need to change many of these policies.

Prominent scientists — including Professor Ephraim Urbach, president of the Israel Academy of Sciences and Humanities, and Professor Ephraim Katzir, former President of the State of Israel — played a prominent part in the successful attempt to force the appointment of a commission of judicial inquiry to probe the massacre of

Palestinian refugees in Beirut. Many of these same scientists actively oppose the don't-give-back-an-inch views of the Begin government.

Even they however, are split over the question of a separate Palestinian state. Some think the emergence of such a state inevitable (or even desirable), while others would agree with what Shalheveth Freier said at the Pugwash meeting in Warsaw, where he declared: "If the general atmosphere in the Middle East continues to be uncompromisingly hostile to Israel, I suppose I should feel compelled to resist the creation of another hostile state. If, however, peace were to descend on this area, I believe that all honourable options would be open." **Nechemia Meyers**

US defence research

Computer plan

Washington

The US Department of Defense (DoD) is adding to its existing investment in computer research several new programmes designed to counter possible Japanese domination of the field. The budget for fiscal year 1984, which is now under negotiation behind closed doors, is likely to include hundreds of millions of additional dollars for special programmes in super-computer research and software. DoD is already supporting research in Very Large Integrated Circuits, the technology of gallium arsenide as a replacement for silicon, and other computer-related programmes.

In a speech to a professional meeting in Orlando, Florida, Robert S. Cooper, director of the Defense Advanced Projects Research Agency (DARPA) announced that he would counter the Japanese computer effort with a research programme aimed at achieving the extraordinary speed of 10,000 million floating point operations per second by 1990. Present "supercom-



puters" such as the Cray III and Control Data's Cyber 205 attain speeds of 100 megaflops, while the Japanese programmes aims at achieving 1,000 megaflops. DARPA's programme is rumoured to have initial costs of \$150 million.

DARPA supports basic research and exploratory development for the Directorate of Defense Research and Engineering and would not, therefore, be involved in applications. Possible defence applications include warhead delivery systems capable of "deciding" for themselves which targets to attack, and thus not dependent on vulnerable telemetry systems.

There is also to be a substantial new programme in the development of software to be managed by a new office to be established within the Defense Research and Engineering Directorate. According to a report from the office of Dr Edith Martin, the deputy under-secretary at the Pentagon with responsibility for research and engineering, it is planned to spend an extra \$30 million on software development in the financial year beginning on 1 October 1983, to provide further funds in succeeding years and to establish a military software institute. It is estimated that between \$5,000 million and \$6,000 million worth of software is already "embedded" in defence systems, and that the amount will rise to \$32,000 million by 1990.

Increased funds are also likely to be

Academic consultancy

Mass. General placates Hoechst

Washington

Massachusetts General Hospital (MGH) is going to unusual lengths to ensure that faculty consulting with outside firms does not conflict with the terms of its 10-year \$50-million agreement with Hoechst AG, the German chemical company.

In the case of one faculty member just appointed to the department funded by Hoechst, MGH is demanding that his consulting with other firms be on a non-confidential basis, a condition apparently not required of other MGH faculty.

The 1981 agreement between Hoechst and MGH represents the largest joint venture so far between industry and an academic institution. Hoechst agreed to provide the money for a new department of molecular biology in exchange for an exclusive licence to any patents that result from the department's research. The agreement also requires any faculty collaboration or consultation with for-profit firms to be cleared with Hoechst.

MGH has now apparently taken it upon itself to negotiate the particulars of consulting contracts that molecular biology faculty members have with outside firms to ensure that they are acceptable to Hoechst. In the case of Dr Brian Seed, the newly-appointed faculty member, MGH has engaged the services of a prominent Boston law firm, Ropes and Gray, to negotiate changes in his consulting arrangement with Genetics Institute. Genetics Institute, the spin-off from Harvard University's short-lived plan to form its own profit-making genetics engineering company, is negotiating through its own prominent Boston law firm, Hill and Dorr.

The MGH lawyers are demanding that since Seed is free to pass on information from his Hoechst-supported work at MGH to Genetics Institute, he should similarly be free to pass on to Hoechst any information gleaned through his consultations with Genetics Institute. Seed, who says he has heard nothing about the current status of the negotiations, says the basis of MGH's

position is Hoechst's concern over its ability freely to exercise its patent rights under the agreement: "Hoechst is worried that as a result of my consulting for another company I might take up in my lab some work based on proprietary information". Thus Hoechst might end up supporting some research that it could not patent.

MGH officials deny that their actions reflect any special policy towards the department of molecular biology or Hoechst. "We want to make sure that their consulting activity is consistent with the hospital's policy", says Dr Ronald Lamont-Havers, deputy general director for research. "Any consultative agreement needs to be cleared with the hospital to ensure that there is no conflict of interest."

But Lamont-Havers did acknowledge that while the hospital has advised other faculty members that their consulting contracts need to be changed, it has only actively negotiated those changes in the case of department of molecular biology faculty. And he appeared surprised to learn of the non-confidentiality requirement that MGH's own lawyers are demanding in Seed's case. "Usually, in our consulting agreements, we expect that they would receive proprietary information and would not be free to discuss proprietary information", he said.

Dr Howard Goodman, director of the department of molecular biology, denies that anyone in his department has been required to give up any consulting or that appointments have been made contingent upon modifications in an appointee's consulting contracts. And Seed seems confident that an accommodation will be reached in his case. "I doubt that my relationship with Genetics Institute will be severed", he says. But the lingering question is whether the conditions being demanded by MGH — and which Genetics Institute reportedly considers unacceptable — will make it impossible for at least some faculty consulting arrangements to continue. **Stephen Budiansky**