

October; then, if the House and Senate differ, there will have to be a conference from which a compromise may emerge. The SSC could yet limp into 1993 on a reduced budget. But that would not be widely welcomed.

The background to the decision implied by last week's vote is the general concern about the state of the US economy, and the particular need to contain the federal deficit. In a hard year, \$650 million of discretionary spending is a worthwhile prize for hard-pressed politicians. That is why too much of general significance should not be read into the decision. Thus Representative George Brown, the chairman of the House Science Committee, was off the mark when he described the vote as a decision that the United States "cannot afford the next level of understanding" in an important field of science. Those directly involved have mercifully been more phlegmatic. George Trilling, who leads a team building one of the two detectors for SSC, says that, in the absence of technical snags, the decision shows "how the political winds are blowing".

Even so, the decision is disconcerting, with implications outside the United States. What will happen now at the European High-Energy Physics Laboratory (CERN) in Geneva? By the end of this year, it had been hoped that the government members of the CERN consortium would have decided to embark on the construction of the Large Hadron Collider (LHC), the nearest competitor to the SSC in sight. Will the US decision stiffen the resolve of the CERN council? Or will it, alternatively, persuade CERN that the urgency of that project is not now so great?

That dilemma for CERN is also an opportunity for high-energy physics. For decades, in Europe, the erstwhile Soviet Union and the United States, high-energy physicists have acknowledged that genuine international collaboration will ultimately be required in the construction of particle accelerators, but have insisted that the time will come "not now, but later" — usually after their current machine is built. The best outcome of last week's vote in Washington would be an application by the United States to belong to CERN, which could then be renamed to acknowledge its extended membership. That would be the best way of making sure that the high-energy community, having probably lost the SSC, will not lose the LHC as well.

Sadly, though, there is a procedural snag, dramatized by last week's vote. For the past year, the United States has been pleading with (some would say bludgeoning) Japan to contribute to SSC. The Japanese government had promised an answer by the end of the year. After last week's demonstration of congressional fickleness, it is not now difficult to guess what Japan's answer will be. But that same fickleness is an impediment to US membership of CERN, which is an organization established by an international treaty that requires members to pay their dues on time. The procedural snag is that treaties duly ratified by the US Senate do not bind the Congress as a whole to vote prescribed funds. (US arrears in paying United Nations dues are a spectacular case.) Dr D. Allan Bromley, the US Presidential Science Advisor, has been promising a remedy since he took office two years ago. He had better hurry, or the uncertainty created by last week's

vote will quickly spread to overseas partners in other US ventures, the space station in particular. □

Leeds disunited

There is no substitute for openness in the handling of allegations of scientific misconduct.

THE University of Leeds has a lot to learn about allegations of fraud and their investigation. For more than a year, the university has been wrestling with a complaint by Dr Chris Chapman, an immunologist employed by the National Health Service at the university's teaching hospital, that academic colleagues with whom he had worked had been guilty of fraud. Chapman had been asked to develop an immunoassay for the lymphokine interleukin-6, the gene for which had supposedly been cloned by academic colleagues (crucially, employees of the university) and used *in vitro* to produce the protein. At some stage, Chapman says, one of his academic colleagues claimed that the biological activity of the preparation had been demonstrated *in vivo*, but that claim turned out to be false. The consequence was that several people worked for months on a pointless project.

That is not fraud in the usual sense of a deliberately misleading publication, but does qualify as scientific misconduct to be taken seriously. How did the university respond? After badgering from Chapman, the university set up an inquiry described, in a laconic statement last month, as "confidential". The statement also said that "remedial action" had been taken, but went on to refuse further discussion of the issues arising. Meanwhile, and quite separately, the hospital management at Leeds has been reappraising its need of qualified staff and has concluded that it has no further need of Chapman, who has been made redundant more than a decade before his normal retirement age.

This does not look well, to say the least of it. By now, there is an almost biblical stock of case-law to show that institutions can hush up allegations of misconduct only at their peril. In the long run, even those accused do not profit from the haze of rumour that inevitably takes the place of measured analysis and appraisal, as when inquiry reports are made public. On this occasion, the university itself will suffer by giving an open licence to those who would magnify in their imaginations the scandal on which it will not comment. The fact that the whistle-blower in the case has lost his job, however good the reasons advanced by the hospital management, makes matters look even worse.

In backwaters such as Britain, it is tempting to suppose that scientific misconduct, which is known to be well correlated with achievement, is comparatively rare on that account alone. But the correlation is not perfect; indeed, the temptation to cut corners may be just as great as in competitive environments, even if the ambitions of the corner-cutters are appropriately constrained. Not just Leeds but other British universities should be on the look-out for these minor transgressions in case their collective ambition to become good again should ever be attained. □