US panel backs LHC, but seeks extra funds

Washington. High-energy physics needs an extra \$150 million over the three years 1996 to 1998 both to ensure a healthy US domestic programme and to start collaboration with Europe on the proposed Large Hadron Collider (LHC), according to a key advisory panel to the Clinton administration.

But the panel, chaired by Sidney Drell of the Stanford Linear Accelerator Center (SLAC) in California, said in a report published in Washington on Monday that if the extra money cannot be found, the government should axe unspecified elements of the domestic programme in order to proceed with collaboration on the LHC.

The Drell panel — a sub-group of the High Energy Physics Advisory Panel (HEPAP) — was set up by Hazel O'Leary, the Secretary of Energy, to provide advice on how her department's \$650 million-a-year high-energy physics programme should proceed after last year's abandonment of the Superconducting Super Collider (SSC).

Both White House officials and members of Congress have been eagerly awaiting its report before taking up positions on the future of the field.

The panel said that the extra \$150 million is needed to tide the programme over a period in which large construction programmes at Fermilab, Illinois and at SLAC will strain resources. After that, it added, the budget could return to \$650 million a year (adjusted for inflation).

This would provide sufficient funds both to support the domestic programme and to provide a contribution to the LHC, which would total \$400 million by 2003. Drell says this would enable a "lean" US involvement in LHC. "It's not what some proponents would have wished for, but we're trying to be practical," he says.

Under the plan, little money would go to LHC until 1998. But the panel calls for an early and unequivocal statement from the US government endorsing participation in the LHC, to which European governments are expected to commit themselves next month.

Drell says that international collaboration will not work without an endorsement from President Clinton himself, and that it is needed to show young scientists that the government is committed to the field. The panel said that this endorsement should be made even if the extra \$150 million is not forthcoming from Congress, and the budget remains flat.

Drell warned HEPAP on Monday that if that happened "you guys are going to have to sit down and decide what to kill" from the domestic programme. HEPAP members say privately that possible candidates for extinction would include operations at Brookhaven, New York and at SLAC.

The Drell report has received strong backing from HEPAP itself, and is now being

forwarded to O'Leary, while various panel members are urging the wider physics community to unite behind it.

With real cuts of \$135 million over the past three years in high energy physics funding, Drell says that "we have a programme in trouble." The \$150 million, he says, "is one-and-a-half per cent of the cost of the SSC and would get us through the present crisis so that we could build for the future."

Drell also voiced concern about the extra costs which Department of Energy regulations place on the high energy physics programme. One comparison between the National Science Foundation and the department indicated that the latter was paying 7 per cent extra to meet its own regulations.

"Someone has to look at these things because there is a lot of money going out the door," says Drell. Seven per cent of the programme, he points out, is virtually equivalent to the extra \$50 million a year which his report calls for.

In her first reaction to the report, Martha Krebs, the head of energy research at the Department of Energy, said she understood why it had asked for the extra \$150 million. But she added — perhaps ominously — that

"they've also taken a realistic approach to what the field should do if they don't get it."

The report was welcomed by Congressional supporters of physics. The House science subcommittee chaired by Rick Boucher (Democrat, Virginia) held a hearing on Monday at which Boucher and others — including SSC's chief executioner, Sherwood Boehlert (Republican, New York) — expressed their support for both the LHC and the extra \$150 million.

But political reality remains more fraught than the public reception of the Drell report suggests. A tight budget climate makes it highly unlikely that Congress will restore to high-energy physics money which it has only recently cut. If the budget stays level, Congress will be loathe to implement any HEPAP recommendation to run down facilities in California or New York State in order to fund the LHC in Switzerland.

It is in anticipation of such problems that Drell is stressing the need for a clear lead from President Clinton. But so far there has been no sign from the president's Office of Science and Technology Policy that such a lead will be forthcoming.

Colin Macilwain

Tensions surface in Pasteur dispute

Paris. The Institut Pasteur in Paris is investigating the operation of its laboratory of cellular immunology, some two years after an earlier enquiry found evidence of scientific misconduct by a postdoctoral researcher in the laboratory.

The institute says it wants to know more about the "background" to the misconduct, although it insists that the enquiry concerns only the quality of work in the laboratory, and not the misconduct incident.

But the director of the laboratory, Jacques Thèze, claims that pressure for the second enquiry has come from adversaries keen to exploit what he describes as a minor incident in order to discredit him. In particular, some say that Thèze's efforts to reform the Institut Pasteur in Lyons, which he headed between 1990 and 1992, have made him enemies.

The misconduct affair involved a postdoctoral researcher, Dragana Jankovic, who, according to Pasteur documents, fabricated results from gels in a paper on expression of viral oncogenes submitted to the *Proceedings of the National Academy of Sciences* in 1992.

The paper was withdrawn in October 1992 by Thèze and Moshe Yaniv — a co-author and head of the laboratory of viral oncogenes. Yaniv says their suspicions were aroused when a colleague of Jankovic's, Angelita Rebello, became reluctant to sign

the paper, and that she subsequently told them what Jankovic had done.

When Maxime Schwartz, the director of the Institut Pasteur, heard of the allegations, he promptly set up an enquiry. Schwartz says that Jankovic subsequently confessed and "resigned" (Jankovic could not be traced for comment). He also says that the first enquiry found no evidence that Thèze knew of or suspected the misconduct beforehand.

Nevertheless, according to Schwartz, the second enquiry was set up to address the concerns of some researchers at the Pasteur that aspects of the operation of Thèze's laboratory might have been conducive to Jankovic's misconduct.

But "no smoke without fire" has been one reaction to the second investigation into Thèze's laboratory. Moreover, some argue that the institute must accept much of the responsibility for creating this climate of suspicion.

Furthermore, Pasteur documents also show that the first enquiry found that Antonio Coutinho, the head of the immunology department, and Philippe Kourilsky, his deputy and a scientific director of the Lyons-based company Laboratoires Mérieux, both knew of the allegations of misconduct in June 1992, but waited until October before telling Schwartz.

This finding has been kept confidential, and has created further suspicion, this

time over possible motives for the delay in notifying Thèze — who with Yaniv had uncovered the alleged misconduct independently — and the institute of the allegations.

Kourilsky defends his action, however, saying that a tearful Rebello only agreed to tell him and Coutinho about the misconduct if they "swore to secrecy". He adds that they waited until she brought them proof before proceeding. Nonetheless, Pasteur documents describe the delay as "regrettable", and say that it "inflated" the misconduct incident.

Kourilsky also claims that the first enquiry found "serious malfunctions" in Thèze's laboratory, and says that he hopes that the new enquiry will "clarify" matters. But the institute has declined to comment on the exact nature of the alleged "malfunctioning" until the second enquiry has been completed.

In a written statement to the institute, Thèze dismisses such claims, and criticizes the first enquiry for giving "too much weight" to "allegations formulated by individuals implicated by the enquiry".

One allegation by Thèze's critics is that he failed to oversee his laboratory in Paris properly because of his prolonged absence as director of the Institut Pasteur in Lyons. But a formal evaluation of his laboratory in April 1992 concluded that it was nonetheless running smoothly.

Both François Gros, a former director of the Paris institute, and Jean-Paul Aubert, director of the laboratory of cellular physiology, have said that it was "normal" for Thèze to have delegated the running of his laboratory while working in Lyons.

Aubert has said the institute should have thanked Thèze for taking on the "difficult and risky" job of running the Lyons institute, instead of "making trouble" for him over a "secondary question".

Some claim that the charges against Thèze are linked to the local resentment generated in Lyons by his efforts to introduce reforms aimed at addressing longstanding criticism that it carried out too much commercial biomedical analysis, and not enough fundamental research.

Thèze was fired from his Lyons post in early 1992 after conflict with Michel Robatel, the president of the board of the Lyons institute, although the Ministry of Research and the General Inspectorate of Social Affairs both later favourably assessed his reforms. The Institut Pasteur in Paris subsequently tried to withdraw the Pasteur label from the institute, and the historically strained relationship between the two institutes deepened.

Thèze is confident that the conclusions of the new enquiry, which will report its findings to Schwartz next month, will exonerate his laboratory. Schwartz says that the Jankovic affair is the first case of scientific misconduct to have been brought to his attention since he became director in 1988.

Declan Butler

International support urged for biotechnology guidelines

London. Government officials in Britain and the Netherlands are leading an attempt to obtain international endorsement of a set of safety guidelines covering the use of genetically engineered organisms and their release into the environment.

Both countries are now looking for a possible institutional home for these guidelines. One leading contender is the United Nations Environment Programme (UNEP), which already promulgates similar guidelines covering the environmental impact of new chemicals.

The initiative has raised concern among non-governmental organizations (NGOs) such as the Green Alliance and the World Wide Fund for Nature. They are keen that any such guidelines should be backed by a legal instrument, such as a legally enforceable protocol to the Biodiversity Convention.

The need for an international agreement on biosafety was agreed as part of a plan of action approved by the 1992 UN Conference on the Environment and Development in Rio de Janeiro. "From an NGO position, we cannot accept anything that might sabotage an eventual legal instrument," says Julie Hill, director of the Green Alliance in London. "Guidelines will be useful, but they should eventually become legally binding."

But British and Dutch officials say that, although they share this goal, agreement on a protocol could take ten years or more. It could also run into opposition in principle from developed countries (such as the United States) committed to deregulation.

International endorsement of a common set of technical guidelines would, they claim, be an interim step. "We do not want to present our proposal as an alternative [to any legally binding instrument]," says one British official. "We want to present it as a set of guidelines that people can pick up and introduce straight away."

The draft guidelines have been drawn up by an international group of experts. They build both on domestic experience in the developed countries — particularly Britain and the Netherlands — and on feedback from efforts to stimulate regional debates in a number of developing countries on safety in biotechnology.

As they stand, the proposed guidelines deal with topics such as the assessment and management of risks, establishing national and/or regional focal points responsible for the transfer of information about novel organisms, and helping developing countries to strengthen their own expertise in imposing and evaluating safety procedures.

"The guidelines do not waste time trying

to find the perfect solution," says one British official. "It is a 'warts and all' approach, but we hope that it is both a pragmatic and a scientific approach, allowing countries to make the best use of information available at any one time."

Those responsible for drafting the guidelines say they are intended to meet the

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A Nigerian gene bank: safety first.

concerns of less-developed countries keen, for example, to introduce genetically engineered crops, but uncertain over how to tackle the safety aspects.

At the same time, they say, biotechnology companies in developed countries are equally eager to see an international safety system in place, if only to reduce the likelihood of embarrassing situations that could give the whole industry a bad name.

The proposed guidelines refrain either from addressing the socio-economic impact of biotechnology on countries at different levels of development, or from defining the precise mechanisms for public involvement in the regulatory process. The guidelines also allow individual countries to introduce more stringent safety requirements.

The main political issue now is which international body is best placed to provide the institutional back-up needed to promulgate the guidelines, and in particular to channel to less-developed countries the resources required to implement them.

The development of the proposed guidelines has the backing of the British and Dutch governments. They are now being circulated widely to officials in other countries, and are expected to be discussed in the corridors at a meeting of the Commission of Sustainable Development to be held in New York next week.

The attitude of the NGOs will be important in winning political approval. These remain adamant that a legally binding international commitment will be needed to protect the environment against novel organisms. But most seem prepared to be pragmatic, and to back the proposed moves as an interim measure that is better than nothing.

David Dickson

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