

US plans Frontiers support

Tokyo

FOUR major US government agencies are planning to contribute several million dollars a year to Japan's Human Frontiers Science Programme, which supports international research on the brain and molecular biology, two senior officials from the US Department of Energy (DOE) said in Tokyo last week. The contribution would provide a significant political boost to the programme, which is Japan's first effort in international science projects.

US Secretary of Energy James Watkins, who was in Tokyo to lobby for Japanese support of the US Superconducting Super Collider (see story this page), announced the planned contribution at a press luncheon on 4 December. In response to questioning by reporters, he said that the DOE, the National Aeronautics and Space Administration (NASA), the National Institutes of Health (NIH) and the National Science Foundation (NSF) all intend to make budget requests for Frontiers in the fiscal 1993 budget proposal to be submitted by the US Administration in February.

NIH have already decided to give a tiny amount of 'in kind' support to Frontiers by providing the salary for one research fellow to work at NIH (see *Nature* 350, 97; 14 March 1991). And D. Allan Bromley, science adviser to the US president, hinted at more US support for the Japanese programme during a recent visit to Tokyo that was also primarily intended to win Japanese support for the SSC. But this is the first indication that NASA, DOE

and NSF will put money in Frontiers.

Officials at the four US agencies in Washington would not reveal details of their 1993 budget requests, but William Happer, director of DOE's Office of Energy Research, who accompanied Watkins to Tokyo, said he believes the four agencies are seeking "several million dollars" a year for Frontiers.

Such a US contribution would be a significant financial boost to the programme, which at present has an annual budget of only about \$30 million, provided almost entirely by Japan. But, more importantly, support by the four agencies would give Frontiers a political shot in the arm. US government officials initially gave a very cool reception to the Japanese-proposed programme.

Both Watkins and Bromley have left the impression with some people in Japan that the US intention to support Frontiers is linked to US requests for SSC support. But Watkins did not mention US plans to put money in Frontiers when he discussed the SSC with the head of the Science and Technology Agency, the Japanese government organization in charge of Frontiers. And another senior administration official accompanying Watkins said after a background press briefing at the US embassy in Tokyo on 5 December that there is no link between the two, and he expects that the US Administration will go ahead with the budget requests for Frontiers regardless of whether Japan decides to support the SSC. **David Swinbanks**

SSC appeal gets cold shoulder

Tokyo

ADMIRAL James Watkins, US Secretary of Energy, got a decidedly frosty reception to his requests last week for Japanese support for the US Superconducting Super Collider (SSC).

Watkins visited the heads of the key science-related ministries and agencies, as well as Finance Minister Tsutomu Hata, foreign minister Michio Watanabe, former prime minister Noboru Takeshita, and Kishiro Nakamura, head of a new pressure group for science in the ruling Liberal Democratic Party (see *Nature* 354, 342; 5 December 1991).

But everywhere he went the message was the same as that repeated many times before to other US officials seeking support for the SSC: the Japanese government wants to concentrate on spending its science budget on improving the basic research system in Japan.

Watkins tried to sweeten the US request for SSC support by suggesting that Japan did not actually have to pro-

vide any money to the United States. A contribution 'in kind' in the form of Japanese-made equipment for the SSC would be very acceptable, he said. Japan could, for example, provide one of the two 19-mile-diameter proton rings for the SSC.

But the head of the Science and Technology Agency told Watkins quite bluntly that it does not really make much difference to the Japanese government whether it is an in-kind contribution or not. Either way, it requires money — a proton ring would cost about \$1,250 million according to US estimates — and contributing to the SSC will be "very difficult if not impossible", he said.

The only hope left for persuading Japan to help with the SSC seems to be the visit by US President George Bush to Japan next month. Bush will bring up the topic of the SSC, and, if he has some political leverage up his sleeve, he may be able to twist support out of Japan's new prime minister, Kiichi Miyazawa.

D.S.

Tiger project halted

New Delhi

CONTROVERSY in India over the death of five tigers in a sanctuary in Karnataka State has led to closure of an Indian-US research project on tigers. Last week, state environment minister B. Basavalingappa ordered the confiscation of cameras and equipment used in the project and banned further research.

The state government believes that the tigers died from overdoses of tranquillisers used by researchers to stun the animals before collaring them for radio tracking. Wildlife ecologist K. Ullas Karanth, co-investigator of the project and the scientist at the centre of the controversy, denies this. His collaborator in the United States is Florida University's Melvin Sunquist.

Karanth says the deaths of the tigers had nothing to do with darting, but rather were caused by starvation, old age or fighting — a claim supported by an inquiry ordered by the ministry of environment and forests in New Delhi. The Karnataka state government, however, was not convinced and Basavalingappa, in any case, did not consider the project "to be of any use for tiger conservation".

The decision means that researchers will not be able to study the three tigers and three leopards already collared and still living. It will also have larger implications for ecological research in India, warned R. Sukumar, of the centre for ecological sciences in the Indian institute of science in Bangalore. Writing in the *Current Science* journal of the Indian Academy of Sciences, he said the project would have provided data to help save tigers from extinction. Only one such study has been done in the past in Nepal, also by Sunquist. Closure of the project for reasons not scientific is an assault "on the rights of researchers to freedom of enquiry," he said. **K.S. Jayaraman**

SATELLITES

US pressure pays off

Tokyo

US PRESSURE on Japan to open up its satellite market to foreign competition has paid off. Last week, the large domestic telecommunications company Nippon Telegraph and Telephone announced that it has signed a contract worth hundreds of millions of dollars with the California-based company Space Systems/Loral to build and launch two telecommunications satellites for the Japanese company in 1995. The Japanese government had originally intended that the National Space Development Agency should build the satellites as a national project, but in trade talks last year, the United States insisted that the satellites were intended for commercial purposes and should be open to foreign bidding.

David Swinbanks