

Human genome project a cause of friction

- James Watson's warnings resented in Japan
- Space station and SSC also controversial

Tokyo

RESEARCHERS trying to promote the human genome project in Japan are dismayed by recent suggestions by James Watson, director of the US National Institutes of Health Center for Genome Research, that countries failing to contribute financially to the project should be denied access to US genome data. The remarks exacerbate growing resentment among Japanese scientists at US pressure to join big US-backed projects.

Watson made the comments at a congressional hearing in October (see *Nature* **341**, 679; 1989). And a few months earlier, he privately told Kenichi Matsubara, Japan's representative for the Human Genome Organization (HUGO), that Japan should not expect to benefit from the genome activities of other nations if it does not contribute to HUGO on a scale commensurate with Japan's economic stature.

His remarks are being taken seriously in Japan. In October, Itaru Watanabe, vice-president of the Science Council of Japan, an elected body of 210 scientists, at a meeting of the council to promote the project, warned that "if Japan alone does not contribute to research in this field, Japanese scientists will be blocked from access to overseas information".

Matsubara says that Japanese scientists "fully support" Watson's well-publicized sentiment that Japan as a prosperous nation should contribute more to basic science. But they are perplexed by his specific request for money for HUGO, coming as it does at a time when HUGO is just about to discuss details of its activities and budget. Without such details, it is hard for Japanese scientists to raise funds.

Furthermore, under Japanese law, the Japanese government cannot contribute

money directly to HUGO and donations from the private sector cannot be tax-deductible. Nevertheless, a newly formed task force of the Ministry of Education, Science and Culture headed by Matsubara is looking into "every possible avenue" to raise the few hundred thousand dollars required each year for HUGO. But HUGO itself must make "considerable efforts to shape up so that it can enjoy maximum support from countries with different social structures and regulations", Matsubara says.

Matsubara takes Watson's comments as an "expression of US anxiety" about Japan's genome efforts in general and a reaction to "incoherent and fragmentary information" in the United States about what is going on in Japan. Matsubara points out that various government agencies and ministries are spending more than \$10 million a year on genome-related projects. Although this is small compared with the investment in the United States, it is similar to that of several European nations. And by 1991 Matsubara is confident that the Ministry of Education's task force will have gained extra support.

But it is Watson's suggestion that countries failing to contribute to the project should be denied access to US genome data that has caused most upset. Matsubara says that such action would be "tremendously unfortunate not only for us but also for the progress of science". Japanese scientists would be "extremely annoyed by such hasty action" which would be "unprecedented in the history of international cooperation in science".

Japanese scientists and government officials are getting tired of US pressure to cooperate in big science projects. Other examples are the US Superconducting Super Collider (SSC) and the US Space Station. Having won Japanese support for the space station, the US government has now caused considerable upset in Japan (and Europe) by delaying the project and scaling down the power specifications for the station (see *Nature* **341**, 3; 1989). And in July, a Tokyo University physicist at a public lecture on the future of science indignantly asked of the SSC "why should we contribute to Texan pork-barrel politics?"

In a similar vein, Matsubara says that Japanese scientists feel that the human genome project is not something they should be forced to cooperate in "simply because the US government has decided to initiate and allocate a budget for it".

David Swinbanks

EMBRYO RESEARCH

British debate under way

London

THE British government's draft legislation to regulate the practice of *in vitro* fertilization (IVF), artificial insemination (AID) and embryo research, published last week, closely follows the recommendations of the Warnock report, published in 1984, but offers ingenious legal solutions for some of the problems raised therein.

The bill will first be debated in the House of Lords beginning in the next few weeks. As recommended by Warnock and promised by the government's white paper earlier this year, there will be a statutory authority, called the Human Fertilization and Embryology Authority, to license activities and research not permanently forbidden.

The latter include the keeping of embryos after the appearance of the primitive streak (the rudiments of the nervous system) at roughly 14 days, the transgenic transfer of human embryos and the replacement of the nucleus of one cell in an embryo by a cell from another embryo or from any other person (which is a possible route to the cloning of people).

As promised last year, Parliament will have to choose whether to allow research on human embryos between conception and the appearance of the primitive streak or to forbid it. The government says that it will not make use of party discipline to persuade its supporters vote in any particular direction.

The bill deals with surprising ease with some of the legal uncertainties raised by Warnock, notably the parentage of children born by IVF and AID. In all cases, a child's mother is defined as the woman in whose uterus it was brought to term, so that surrogacy will require formal adoption. Similarly, the father will be the mother's male spouse provided that he has consented to the procedure. Third parties who donate sperm for either IVF or AID will not be counted as fathers if they have consented to the procedures. The authority will be required to keep data allowing genetic relationships between potential marriage partners to be reconstructed.

The Royal Society has entered the forthcoming debate as a lobbyist, urging in a statement put out last week that embryo research should be allowed. The Voluntary Licensing Authority sponsored jointly by the Medical Research Council and the Royal College of Obstetricians and Gynaecologists which has changed its name to the Interim Licensing Authority, in a document of embryo research published with its annual report this week, echoes the Royal Society in its hope that the forthcoming debate will not be obscured by the abortion issue. □

Frontiersman Gowans



SIR James Gowans, formerly secretary of the UK Medical Research Council, is to be the first secretary-general of Japan's Human Frontiers Science Programme, which opened its office in Strasbourg last week (see *Nature* **342**, 334; 1989).