patenting of DNA sequence information only when it is intended for a specific use, adding that a shift to such "use" patents, as opposed to "structure of matter" patents, could render the current controversy moot. Use patents may need to be strengthened, he said, since they offer limited protection and some countries don't honor them. But even so, consensus seems to be converging around that approach.

Just one week earlier, a group of 250 scientists meeting in Brazil for the First South-North Human Genome Conference passed a unanimous resolution saying that "intellectual property should be based on the uses of sequences rather than the sequences themselves." Several European representatives at the academy meeting, including David Owen from the Medical Research Council in England, also pushed for an international treaty by which countries would agree not to seek patents on these fragments until their uses are clearly demonstrated.

The sentiment among the working group members was clearly in favor of putting the U.S. house in order before venturing into international negotiations. And that will take some time. The OSTP working group will pass along its policy options to White House science adviser D. Allan Bromley in July, and legislative action may ultimately be needed. Meanwhile, the Patent and Trademark Office has promised to expedite review of the NIH patent application, which could settle at least part of the controversy, but there is no sign yet as to when the office will rule.

–Leslie Roberts

FETAL TISSUE

Banking for Transplantation Research

In an effort to head off a rare political defeat in Congress last week, President Bush touched off a debate that is likely to reverberate around the scientific community for some time. The issue: Just how much fetal tissue might be obtained for research from sources other than induced abortions?

The question was raised when Bush proposed establishing government-funded banks for fetal tissue derived from spontaneous abortions and ectopic pregnancies. Bush said this plan—which he proposed on the eve of a congressional vote that would end a 4-year moratorium on federal funding for transplantation research that uses fetal tissue from induced abortion—would allow such research to proceed without encouraging women to have abortions.

Under Bush's plan, five to 10 tissue banks would be established at an estimated cost of $3 million in the first year. They would supply fetal tissue to research projects and maintain human fetal cell lines. According to the Administration's point man on the plan, Assistant Secretary of Health James O. Mason, "conservative" estimates suggest that approximately 2000 tissue samples acceptable for transplantation would be obtained each year. That would be more than enough to meet current demand for about 200 tissue samples each year, Mason claimed.

Mason's figures, prepared by the National Institutes of Health (NIH), were quickly challenged by researchers, however. They are based on a reanalysis of a 10-year-old study conducted by Julianne Byrne, an epidemiologist now at the National Cancer Institute. In the late 1970s, Byrne examined spontaneous abortions that occurred at three large hospitals in New York City. She evaluated 3518 tissue samples over a period of 4-and-a-half years and determined that 241 samples appeared to be acceptable for transplantation. (The rest had genetic or other structural defects.) But Eugene Redmond, who heads a Yale University team that is using fetal tissue transplants for Parkinsonism—a program funded by private donations because of the federal funding ban—says only about eight samples per year would be available based on Byrne's data. The reason: His project requires tissue between 7 and 12 weeks gestational age. Moreover, Byrne admits she made no attempt to determine whether viral or bacterial infection might make tissue that she classified as acceptable unsuitable for transplantation.

Alan Fantel, a teratologist at the University of Washington in Seattle, is also skeptical about the Administration's plan. The National Institute of Child Health and Human Development has funded Fantel's lab for 27 years as a center for collection and dissemination of fetal tissue from both induced and spontaneous abortions for research that does not involve transplantation, and is therefore not covered by the federal funding ban. The problem with tissue from spontaneous abortions, says Fantel, is that it degenerates because it remains in the womb for days or weeks after the fetus has died, but before it is expelled. "In 20 years, I don't think I could count on the fingers of one hand the number of samples from spontaneous abortion that would be suitable for transplantation purposes," he says.

Mason insists that the Administration's plan is not intended to discourage fetal tissue research, but to "eliminate the medico-ethical tangle and make human fetal tissue from noncontroversial sources more available." So far, however, Congress doesn't appear to be buying that argument. Language overturning the funding ban is contained in the NIH reauthorization bill, which has now passed both houses of Congress (*Science*, 10 April, p. 172). The Administration's proposal for a fetal tissue bank is essentially the same as one proposed by Senator Orrin Hatch (R–UT) when the Senate was considering the NIH reauthorization, but it was soundly defeated 77-23. The Senate then went on to approve the bill by a margin that would override a threatened presidential veto, with several prominent, conservative Republicans not only voting in favor of it, but actively lobbying on behalf of the bill.

A House-Senate conference on the legislation has now produced a final version of the bill and both the House and Senate are expected to vote on the measure in the next few days.

–Joseph Palca

PORK BARREL FUNDING

Congress Sends a Message

Congress last week told the Bush Administration in no uncertain terms that pork-barrel funding of research and science facilities is here to stay. Both the House and Senate passed a bill that rejects the Administration's efforts to cut several science projects that Congress had added to the 1992 budget, mostly without peer review (*Science*, 27 March, p. 1635). And, to drive home the message that Congress reserves the right to determine what research should be funded, the legislation strongly recommends that 31 peer-reviewed social science projects in the president's 1992 budget for the National Science Foundation (NSF) be axed. The reason? The Senate Appropriations Committee, in what a staff aide acknowledged was a "tit-for-tat" move, claimed the projects cannot be justified for their contributions to economic competitiveness or fundamental knowledge (*Science*, 15 May, p. 959).

The bill passed last week simply docks $2 million from NSF's budget. But the accompanying report urges that the reductions be applied to the 31 projects singled out by the Senate Appropriations Committee. NSF officials are now trying to decide whether they must cut these specific projects or whether they can apply the reduction across the agency's $1.8 billion research budget.

Picking on specific items in the Administration's bugdet "is something we don't necessarily intend to do in the future," says the Senate aide—if the Administration gets the message.

–J.P.