FETAL TISSUE

# Congress Considers Testing Bush's Plan

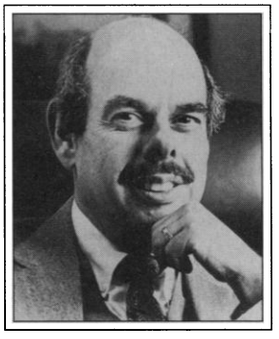
Two key legislators are attempting to call President Bush's bluff on fetal tissue research. Last week, the president vetoed legislation that would have ended the ban on using fetal tissue from induced abortions for federally funded transplantation research, and the House of Representatives came several votes short of overriding the veto. One reason Bush was able to persuade just enough legislators to vote with him was a controversial proposal he offered on the eve of the vote that, he argues, will allow transplantation research to take place without lifting the ban: On 19 May, he ordered the National Institutes of Health (NIH) to set up a network of fetal tissue banks to salvage and store cells from ectopic pregnancies and miscarriages for use in research. According to Administration officials, the bank would accrue more than enough fetal tissue for transplantation into patients with diseases such as Parkinson's and Alzheimer's, and it also would sidestep the emotional debate over whether it's ethical to use fetal tissue from elective abortions. Many scientists have criticized the bank, however, claiming that too few tissue samples would be suitable for research (*Science*, 29 May, p. 1274).

The day after the House sustained Bush's veto, Senator Edward M. Kennedy (D–MA) and Representative Henry A. Waxman (D–CA) introduced legislation that would effectively give the bank a 1-year trial. But they added a big penalty for failure: If the bank can't keep up with demand, the moratorium on using cells from elective abortions would be lifted. The Kennedy-Waxman bill would require federally funded researchers who need fetal tissue to request it first from the tissue bank. If the bank could provide no viable samples within 14 days, the researchers could "obtain the tissue elsewhere." This provision would go into effect on 19 May, 1993.

"This bill simply makes a promise to people with Parkinson's and diabetes that we will do the research one way or the other," Waxman said in a statement last week, calling it a "good-faith compromise." Some observers view it a bit differently—as a way to ensure that if the president vetoes the bill again, Congress would have enough votes to override him. "It softens it just enough," says an NIH official. "If I were betting, I'd give an edge to the override happening," she says.

**"This bill makes a promise to people with Parkinson's and diabetes that we will do the research."**

**–Henry Waxman**



Kennedy and Waxman hope to get their bill through Congress and to the president for signing before Congress' summer recess in August. If it does survive a veto, it would put a lot of pressure on the Administra-

## Bush Awards Science, Technology Medals

Eight scientists were awarded the National Medal of Science, and seven individuals and one company were awarded the National Medal of Technology on 23 June.

**The science medalists are as follows:**

**Eleanor J. Gibson**, Cornell University, for her "conceptual insights in developing a theory of perceptual learning and for achieving a deeper understanding of perceptual development in children and basic processes in reading."

**Allen Newell**, Carnegie-Melon University, for his "seminal contributions to the development of artificial intelligence, the theory of human cognition, and the software and hardware of computational systems for complex information processing."

**Calvin F. Quate**, Stanford University and Xerox PARC, for his "contributions to microscopy, particularly the scanning acoustic microscope and the atomic force microscope."

**Eugene M. Shoemaker**, U.S. Geological Survey, Flagstaff, Arizona, for "his pioneering research and inspiring leadership in the geological exploration of the solar system, for his entrepreneurial creation and direction of the Branch of Astrogeology of the U.S. Geological Survey, and for his research on Earth-approaching asteroids and comets and their potential impact effects."

**Howard E. Simmons**, Du Pont Co. (retired), for his "fundamental contributions to the knowledge of organic chemistry and for his productive management of the premier industrial chemical research program in the United States."

**Maxine F. Singer**, Carnegie Institution of Washington, "for her outstanding scientific accomplishments and her deep concern for the societal responsibility of the scientist."

**Howard M. Temin**, University of Wisconsin, Madison, for his "demonstration of the existence of RNA-directed DNA synthesis, leading to the discovery of proto-oncogenes within eukaryotic cells and the role of such genes in oncogenes by viruses and other agents, laying the foundation for our knowledge of the replication of HIV, changing our ideas about evolution, and providing vital technology for genetic engineering and human gene therapy."

**John R. Winnery**, University of California, Berkeley, "for his research contributions to microwaves, lasers, and quantum electronics; for his excellence as a teacher and author; and for his extensive services to government and professional organizations."

**The technology medalists are as follows:**

**N. Joseph Woodland**, IBM (retired), "for his invention and contribution to the commercialization of bar code technology, which improved every industrial sector and gave rise to the bar code industry."

**Charles D. Kelman**, New York Eye and Ear Infirmary, and Eye, Ear and Throat Hospital, "for his innovations in cataract surgical technology resulting in reduced rehabilitation time for millions of Americans, significant cost savings, and the creation of a new industry."

**William H. Gates III**, Microsoft Corp., "for his early vision of universal computing at home and in the office; for his technical and business management skills in creating a worldwide technology company; and for his contribution to the development of the personal computer industry."

**Joseph M. Juran**, Juran Institute, for his lifetime work providing the key principles and methods by which enterprises manage the quality of their products and processes, enhancing their ability to compete in the global marketplace."

**Merck & Co. Inc.**, "for sustained innovation focusing on the discovery, development, and worldwide commercialization of superior human and animal health products while maintaining proper concern for the environment."

**W. Lincoln Hawkins**, AT&T Bell Laboratories (retired), "for his invention and commercialization of long-lived plastic coatings for communication cable that has saved billions of dollars for telephone companies around the world; and for his leadership in encouraging minorities to pursue science and engineering careers."

**Delbert H. Meyer**, Amoco Chemical (retired), "for his discovery of the process for making purified terephthalic acid (PTA), the key building block in the production of polyester, which resulted in greatly accelerated growth of polyester products such as fabrics, recording tape, tire cord, food packaging, and bottles."

**Paul B. Weisz**, University of Pennsylvania, "for his basic discoveries and management in the field of zeolite catalysis, in conjunction with his colleagues at Mobil Oil, leading to chemical and petroleum technologies now producing products valued at billions of dollars per year."

tion to make the fetal tissue banks work. The plan is to establish about six centers across the country, each of which is expected to provide at least 200 usable fetuses—half from ectopic pregnancies and half from miscarriages—says Delbert H. Dayton, chief of the genetics and teratology branch in the National Institute of Child Health and Human Development and the NIH point man for the tissue bank.

But many scientists argue that the estimated $3 million it will cost to launch the banks will be wasted. (As *Science* went to press, an NIH spokesman said that funding options "are still being evaluated.") "We think you could go through a very expensive exercise and get nothing," says Eugene Redmond, director of the fetal cell transplant program at Yale University and an outspoken critic of the tissue bank. Aside from the start-up costs, Redmond says it costs about $1000 to run fetal tissue samples through a battery of tests that check for viability, including factors such as bacterial or viral infections that might make the tissue unusable. Many dollars might be wasted on testing what likely will be a higher proportion of unusable fetuses from ectopic pregnancies and miscarriages than from elective abortions, Redmond insists.

In any event, the legislation will put the Bush Administration's claims to a tough scientific test. "The 'Waxman Solution' would let the science and the president's proposal prove themselves," says Andrew R. Hoffman, a Stanford medical researcher and president of the American Federation for Clinical Research. "That's what research is all about."

**–Richard Stone**

SEXUAL BEHAVIOR

# French Venture Where U.S. Fears to Tread

LONDON—Trust the French to get there first. While U.S. efforts to launch a national survey of sexual behavior have foundered on opposition from the Bush Administration and conservative lawmakers like Senator Jesse Helms (R–NC) and Representative William Dannemeyer (R–CA), the no-hang-ups French government has already finished its own survey of more than 20,000 people aged 18 to 69. The first results—intended to help devise more effective strategies to counter the spread of AIDS—were released by project leader Alfred Spira from the Bicêtre Hospital near Paris on 29 June.

The data, although preliminary, contain a couple of surprises. The first, homosexuality turns out to be significantly less common than suggested by Alfred Kinsey's survey of sexual behavior in the United States in the 1950s—still the standard work in the field even though it's 40 years out of date. And second, data on condom use provide depressing evidence that safe sex information programs—at least in France—still have a long way to go.

Despite stereotypes that have been around since at least Shakespeare's day, the French seem to be very similar in their sexual behavior to their unemotional cousins in Britain. Spira's findings that men report a mean of 1.2 sexual partners in the past 12 months and women a mean of 0.9 partners are virtually identical to results from a pilot study for an ongoing British survey. There's also broad agreement with French results showing that 13.8% of men and 6.3% of women say they'd had two or more sexual partners in the past 12 months, and that men say that they've had intercourse eight times and women seven times in the previous 4-week period.

Similarities between the French and the British studies extend to homosexuality, with figures that are "rather low, in comparison to what I had expected," says Spira. His group found that 4.1% of men and 2.6% of women said that they'd had homosexual intercourse at least once in their life. Only 1.1% of men and 0.3% of women said they'd had homosexual intercourse in the past 12 months.

Those figures should help lay to rest myths about homosexuality that persist from Kinsey's survey, which found that 10% of males reported having had homosexual intercourse. "We've all gone around with the Kinsey 10% in our heads," says Anne Johnson, a member of the British sex survey team from London's Middlesex Hospital. Kinsey's sample was far from representative, she says, as it was drawn entirely from white male volunteers.

Lacking similar data of their own, U.S. researchers can't wait to get their hands on the details of the French survey. University of Chicago social scientist Edward Laumann, whose own plans for a U.S. sexual behavior survey were shot down when opposition from Helms and Dannemeyer led to both the House Appropriations Committee and the Office of Management and Budget withdrawing funding, says he wants to know more about the variance surrounding the mean results that Spira has now released. In the U.S. General Social Survey, conducted from 1988 through 1991—a broad social survey of some 6000 people that contains some questions on sexual behavior—1% of single men reported having more than 20 partners during the previous year. To tackle AIDS prevention, says Laumann, it's going to be important to focus on the women partnering these men.

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Spira agrees that his summary data, by themselves, won't help design specific AIDS prevention strategies. (More detailed data should be available in a few months.) But data already released on condom use show that public information campaigns have not been effective in France: Of people with two or more partners over the past year, 39% of men and 58% of women say they never use condoms. And another 20% and 26%, respectively, say they only use them from time to time. Spira has now moved on to study patterns of condom use in relation to various psychological parameters—including measures of optimism, fatalism, and attitudes toward death—to see if existing programs to encourage condom use can be fine-tuned to influence the people who aren't yet protecting themselves.

Although U.S. researchers are eager to see the results of the French studies and British data due to be released this fall, they worry that congressional opponents will now argue that there's no need to conduct a similar survey in the United States. Sevgi Aral, a sociologist who specializes in the prevention of sexually transmitted diseases at the Centers for Disease Control (CDC) in Atlanta, says that it will be difficult to counter this argument without firm data, but she suspects that cultural differences between Europe and the United States mean that specific U.S. data would still be important.

Some U.S. surveys are, however, proceeding quietly. Chicago's Laumann, for example, has received funding from six foundations, which he declines to name, for a much scaled-down version of his original proposal. And at the University of California, San Francisco, Joe Catania has even managed to win federal funding for the National AIDS Behavioral Survey, involving some 14,000 subjects. Catania says his project is "not strictly speaking a sex survey"—intimate questions about sexual behavior are only asked of those whose questionnaire responses identify them as having a high risk of HIV infection. It's this, he believes, "that has kept us from being clobbered." But carrying out sex survey research almost as a covert operation is "no way to do science," says one U.S. researcher, who asked not to be named. "It's so incredibly stupid," he says. "People are dying, and they're dying of ignorance."

**–Peter Aldhous**