

tion representing large drug companies, joined the fray. It sponsored a press conference on 6 February at which PhRMA scientist Gillian Woollett warned that passage of S. 1601 could cast "a pall over a whole area of research," scaring away researchers who might use somatic cell nuclear transfer to develop skin cells for burn victims, bone marrow for cancer patients, and neuronal cells for people with spinal cord injuries. Herbert Pardes, dean of the Columbia University College of Physicians and Surgeons, and Heather Fraser, a patient spokesperson for the Cystic Fibrosis Foundation, argued that outlawing research would set a dangerous precedent. In parallel, the Biotech Industry Organization and about 70 patient advocacy groups and professional societies added their voices to the chorus.

But perhaps the weightiest blow was delivered on 9 February, when the American Society for Cell Biology distributed a letter signed by 27 Nobelists, including several from outside biology, such as economist Kenneth Arrow and physicist Douglas Osheroff of Stanford University. It declared "a broad consensus" in favor of banning human cloning through a voluntary moratorium. If anticloning legislation must be

passed, they said, it should apply only to the creation of human beings, not embryos, and should "not include language that impedes critical ongoing and potential new research." Speaking for the group, biochemist Paul Berg of Stanford told *The New York Times*, "The Bond-Frist bill is clearly going to block very important research."

The opponents already had two important allies in the Senate: Senators Kennedy and Diane Feinstein (D-CA). These two had introduced an alternative bill (S. 1602), crafted with the advice of biomedical groups. The Feinstein-Kennedy bill would, for 10 years, make it illegal to implant into a woman's uterus an embryo created by cloning techniques such as somatic cell nuclear transfer. But their bill would not outlaw research on human somatic cell nuclear transfer. When Lott tried to bring the Bond-Frist bill to a vote, Feinstein and Kennedy began a filibuster.

A filibuster can be broken only if at least 60 senators vote to end debate. Lott appealed to his fellow Republicans to back him on such a vote—a plea that would normally get automatic support. This time, it didn't. Senator Connie Mack (R-FL), a cancer survivor and champion of biomedical research, con-

vinced that it would be a mistake for the Senate to vote on the bill without hearings, persuaded 11 other Republicans to join him in blocking Lott. They added their number to 42 Democrats. The majority included Thurmond, who spoke with emotion of his hope that basic research might help his diabetic daughter, urging that no laws be placed in the way. Lott's motion failed by a vote of 54 to 42, and the bill was put aside. Says Tipton: "We've dodged the first bullet."

The next day, in the House of Representatives, the Commerce Committee began reviewing a range of proposals for a ban on cloning. Neither the Republican nor Democratic members seemed in a hurry to send legislation to the floor, however, as they heard from religious leaders and probed the meaning of words such as "embryo," "somatic cell," and "human life." The Senate Republican leadership had not made a decision at press time whether to send the Bond-Frist bill to committee for additional review. A spokesperson in Bond's office said only that the bill had been withdrawn from debate, but could be brought back "at any time." The legislation has been shunted off the fast track, perhaps, but not derailed.

—Eliot Marshall

GLOBAL WARMING

House Panel Icy to White House Plans

The relationship between the Administration and Congress on R&D spending has been warming in recent months, but there is still a chill in the air when it comes to global change and government-industry technology partnerships. Combine the two—as the Administration has in arguing for a big technology-development program to cut greenhouse gas emissions—and relations can get downright frosty.

Top Administration science officials certainly got a cool reception from some House Republicans last week, when they went before the House Science Committee to defend their plans to implement a United Nations protocol to reduce greenhouse gases. Committee Chair James Sensenbrenner (R-WI) sparred with Jack Gibbons, the president's departing science adviser, on whether a global-warming threat exists; on the terms of the protocol, signed in Kyoto, Japan, in December; on a request for \$2.7 billion in climate change-related research and technology programs over the next 5 years; and on how the White House plans to fund those programs.

Gibbons testified that the Administration wants to spend nearly \$900 million more in 1999 to manufacture more efficient cars and building equipment, boost spending for solar and renewable energy work, and conduct re-

search into reducing carbon output from fossil fuels. That would more than double the current spending level of \$819 million at a host of agencies led by the Department of Energy (DOE) and the Environmental Protection Agency. For 1999 to 2003, the investment would be \$2.7 billion above the 1998 level. Over the same period, the White House also wants \$3.6 billion in new tax credits to stimulate industry innovation. DOE Under Secretary Ernest Moniz told the panel that the plan is intended to alter the way the United States copes with climate change: "The Chinese proverb says that if you don't change directions, you'll end up where you're headed."

Sensenbrenner promised to keep "an open mind" on the initiative. But he noted that some of the programs are "retreads" from the late 1970s, and others are what Republicans call corporate welfare because they would provide federal funding to industry. He insisted that the initiative be considered separately from the Kyoto pact, and that it should support only long-term, well-managed, high-risk efforts. He also criticized the White House's plan to pay for a portion of the program with money from a settlement between state and federal governments and tobacco companies. Even Representative Sherwood Boehlert (R-NY), who

is sympathetic to the Administration's plan, complained that the president's budget is "built like a house of cards."

One of the sharpest exchanges came when Sensenbrenner, sensitive to charges that his party is ignoring a major global threat, asked Gibbons, "When are you guys and ladies going to stop making us into the bad guys?" Gibbons replied icily, "That is an unfair cut." After the hearing, Gibbons dismissed Sensenbrenner's attack as political posturing. "I suppose the chairman is trying to figure a way to differentiate the Republican view from the Democratic view in an election year," he said.

But that distinction may not be important this year. A majority in Congress apparently feels that the threat of global warming remains vague and that the Kyoto agreement—which would require the United States, by 2012, to cut emissions by 7% from their 1990 levels—could stifle economic growth and lead to a surge in prices. Given that opposition, the president is not expected to submit the treaty for Senate ratification until 1999 at the earliest.

Less controversial is the Administration's global-change research program, which would remain level in 1999 at \$1.86 billion. Much of that is for NASA's Earth Observing System satellites, while \$767 million is set aside for research. Despite the fact that some Republicans are skeptical of its value, the program has avoided cuts in recent years and is likely to do so again in 1999.

—Andrew Lawler

