Boehlert says they "need just as much reevaluation as do the alternative energy R&D programs the policy seems to distrust."

Researchers are puzzled by other recommendations. One asks the President's Council of Advisors on Science and Technology (PCAST) to "make recommendations on using the nation's energy resources more efficiently." But plasma physicist John Holdren of Harvard University notes that he chaired a seemingly identical 1997 PCAST effort. "It's not clear to me [whether] the task force was aware of our results," says Holdren, who had no contact with Cheney's team. "I don't know if it makes sense to do it again."

The energy report's lack of scientific perspective, Holdren says, highlights the new Administration's failure to connect with the technical community. But Congress may be more receptive to researchers' advice when it starts to translate the strategy's sketchy outline into legislation. In the Senate, for instance, a bipartisan group—including Pete Domenici (R–NM), Jeff Bingaman (D–NM), and Joe Lieberman (D–CT)—has already suggested boosting DOE's renewable research programs. Last week House Democrats released their own energy strategy. It calls for doubling the DOE's science budget over 5 years and creating a "science czar" to ensure that the best science guides any overall energy road map.

**–DAVID MALAKOFF**

With reporting by Andrew Lawler.

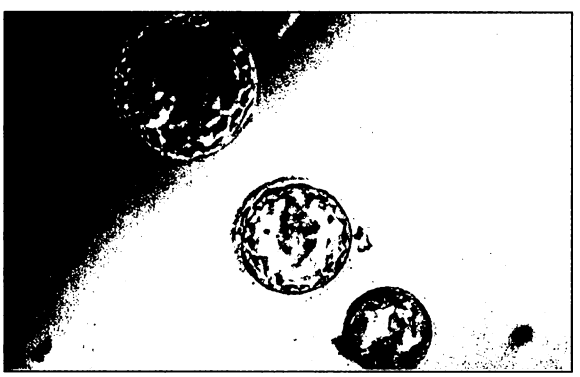
EMBRYONIC STEM CELLS

## Court Asked to Declare NIH Guidelines Legal

Seven prominent stem cell scientists, together with three patients, have filed suit against the U.S. Department of Health and Human Services (HHS) and the National Institutes of Health (NIH). They are charging that the Bush Administration's failure to fund work on human pluripotent stem cells is causing "irreparable harm" by delaying potential therapies.

Last August, NIH issued guidelines to govern federal funding of work on human pluripotent stem cells (HPSCs) (*Science*, 1 September 2000, p. 1442). The move paved the way for NIH-funded scientists to conduct research that can now be done in the United States only with private funds. But it ignited a controversy because the cells—which in theory could be coaxed to become any cell type in the body—are derived from human embryos or fetal tissue obtained from elective abortions. In February, the new Bush Administration asked HHS Secretary Tommy Thompson to review the guidelines; Thompson in turn told NIH to put its process for implementing them on hold (*Science*, 20 April, p. 415).

On 8 May, the scientists, who work with HPSCs using private funding, joined forces with actor Christopher Reeve (paralyzed by a spinal cord injury), Parkinson's disease advocate James Cordy (who suffers from the disease), and Chicago business executive James Tyree (who has type I diabetes). In their complaint they ask the U.S. District Court for the District of Columbia to declare that the NIH guidelines are legal and to compel NIH to fund research on the cells. The plaintiffs include James Thomson of the University of Wisconsin, Madison, who first isolated HPSCs from embryos, and John Gearhart of Johns Hopkins University, who isolated HPSCs from fetal tissue. It also includes the three researchers who have asked NIH to certify that cell lines they have derived meet the guidelines, a prerequisite for their use by other federally funded researchers. They are Roger Pedersen of the University of California, San Francisco, and Alan Trounson and Martin Pera of Monash Medical Center in Melbourne, Australia. Stem cell researchers Dan Kaufman of the University of Wisconsin, Madison, and Douglas Melton of Harvard University are also listed as plaintiffs.



**In dispute.** Suit seeks implementation of guidelines that would permit U.S. government funds to be used for research on pluripotent stem cells derived from human blastocysts (*above*).

In the 22-page complaint, the plaintiffs argue that by halting NIH's review process, HHS is failing in its "statutory duty to fund scientifically meritorious research projects." They note that the 1993 NIH Revitalization Act specifically bars the executive branch from blocking funding for research on transplanting fetal tissue; they also argue that embryonic stem cell lines, as opposed to embryos, are fetal tissue. The review is causing irreparable harm by "delaying research using HPSCs ... by restricting collegial sharing of cell lines with other scientists, and by discouraging talented young researchers from joining their labs or entering the field of HPSC research," the plaintiffs assert. The patients charge that the HHS review is "preventing or delaying the development of potential treatments" for conditions such as paralysis, Parkinson's disease, and diabetes.

This is not the first time the issue has been in the courts. Nightlight Christian Adoptions, an agency that arranges adoptions of extra human embryos created as a part of fertility treatments, filed suit on 8 March to block the NIH guidelines. That suit was put on hold when Thompson asked NIH to suspend its review process.

The government has 60 days to respond to the complaint, says Jeffrey Martin of Shea & Gardner in Washington, D.C., who is representing the plaintiffs pro bono. "Much of the conversation about legal arguments was one-sided until we filed our case," says Martin. He hopes the arguments in the suit will help persuade the Administration to allow the guidelines to proceed. **–GRETCHEN VOGEL**

U.S. SCIENCE EDUCATION

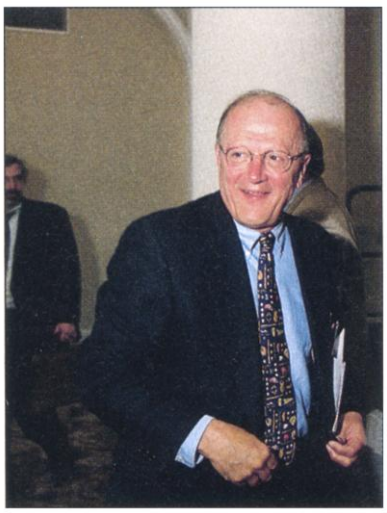
## Lawmakers Vie to Shape NSF Program

Congress abhors a vacuum. So this spring, after President Bush proposed a $200-million-a-year science and math education program to be run by the National Science Foundation (NSF) but offered scant details (*Science*, 13 April, p. 182), legislators jumped at the chance to influence one of the hottest political debates of the year. The result is a slew of bills that would flesh out Bush's sketchy plan to forge partnerships between university researchers and local school districts. Chances appear good that one or more of them will be adopted this year, although funding levels remain up in the air.

Making the biggest splash is a plan intro-

duced last week by the chair of the House Science Committee, Representative Sherwood Boehlert (R–NY). The National Mathematics and Science Partnerships Act (HR 1858) would authorize $267 million a year in programs to strengthen teacher training and professional development. The bill would establish a new NSF grants program that would link universities and nonprofit organizations with local schools and businesses to improve math and science instruction in elementary and secondary schools. It would also provide scholarships for science and math majors or scientists wishing to become teachers, give teachers grants to do university-level research, and create four NSF-funded centers to study how children learn.

"One of the failings of our current [public education] system is that we don't take advantage of all the expertise residing in our universities and businesses," said Boehlert in a prepared statement. "My bill is an effort to do just that."



**Partners aplenty.** Representative Sherwood Boehlert's science and math education bill is one of many that address a new NSF program.

Slightly different versions of the Bush plan are embodied in HR 1 and S 1, the main Republican vehicles for the president's overall effort to rework federal support for elementary and secondary schools. However, those bills would funnel most of the partnership money to local and state school districts through the Department of Education.

Boehlert's bill avoids a controversial provision in a related education bill sponsored by Representative Vernon Ehlers (R–MI) that would require NSF to fund the salaries of master teachers at private as well as public schools. Ehlers says he hopes to move ahead with his bill, HR 100, which suffered a surprise defeat last fall (*Science*, 10 November 2000, p. 1068). But other observers predict that some of Ehlers's provisions will be folded into the chair's bill. Boehlert also hopes to join forces with House Democrats, who earlier this month introduced a partnerships bill, HR 1693, that places a greater emphasis on increasing the participaton of underrepresented groups and boosting educational technologies.

Boehlert's plan appears to be closely aligned with NSF's thinking on Bush's partnership program, which officials first learned about in late January. Judith Sunley, head of NSF's education directorate, expects to issue an announcement this fall on how the program will be run. "We hope that our legislation will influence what [NSF] decides to do," says Boehlert aide David Goldston, who expects the bill to be marked up by the full committee next month.

Whatever their differences, these bills simply give NSF permission to carry out specific programs. The money to run them comes from appropriators, who will shortly start carving up some $661 billion in discretionary spending for the 2002 fiscal year, which begins in October.

Political trade-offs are likely to shape NSF's overall budget, currently $4.4 billion and scheduled for a 1.3% boost. Despite widespread support for improving precollege math and science education, for instance, the 11% increase Bush has proposed for NSF's education programs might be vulnerable. On 16 May a House spending panel discussed shifting some education money into the foundation's core research programs in order to offset cuts and putting a freeze on major research facilities, as called for by the president's April budget. Comparing those cuts to a requested 13.5% increase for the National Institutes of Health, appropriations subcommittee chair James Walsh (R–NY) said after the hearing that "we may need to put more money into the physical sciences" to improve the balance of federally funded research. **–JEFFREY MERVIS**

EUROPEAN HIGHER EDUCATION

## Thirty Nations Pledge To Harmonize Degrees

**PRAGUE**—European universities pride themselves on their unique histories and independence. But that autonomy can be a disadvantage in a world where intellectual talent is increasingly free to ignore national boundaries. Last week, the education ministers of 30 European nations agreed to bolster efforts to bring their systems of higher education closer together. They endorsed reforms that should make it easier for students and researchers to move freely among Europe's sometimes disparate universities.

Meeting here on 18 to 19 May, officials from Germany to Malta agreed to establish by 2010 a "European Higher Education Area" that would include elements such as compara-

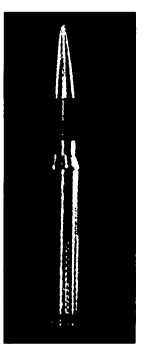
## ScienceScope

**War of Words** Dueling press releases this week broke the bipartisan calm that has pervaded the House Science Committee since Sherwood Boehlert (R–NY) became chair earlier this year. In a 21 May statement, panel Democrat Joe Baca (CA) slammed President George W. Bush for failing to appoint a science adviser, noting that no previous president has ever waited so long (*Science*, 11 May, p. 1041). The release said that Ronald Reagan, the prior record foot-dragger, had appointed George Keyworth as his adviser on 19 May 1981.

The next day, however, Boehlert complained that the Democrats had their facts wrong: Reagan nominated Keyworth on 1 July—a point the Democrats concede. "We used the wrong word," says a Democratic staffer, explaining that Reagan "named" Keyworth as his pick in May but didn't file the official paperwork until later. Either way, says the staffer, the flap "only calls more attention to the fact that this White House isn't getting scientific advice on important issues."

As if to highlight the vacancy, a House appropriations committee this week cancelled a budget hearing on the White House's Office of Science and Technology Policy (OSTP), which the science adviser traditionally leads. According to a committee aide, OSTP said it was so short-staffed it didn't have anyone available to testify.

**Debate Not Depleted** A new report from the U.K.'s Royal Society isn't likely to end the debate over whether soldiers have been sickened by radiation from depleted uranium (DU) munitions.



Some U.S. and European soldiers say their cancers are a result of DU exposure during the 1991 Gulf War and the 1999 Kosovo conflicts. But a study released this week concludes that health risks from DU radiation are "for the most part low." There are possible exceptions, however, including a likely higher risk of lung cancer in tank crew members who inhale the "impact aerosol" created when a DU shell pierces their vehicle's armor. But panel chair Brian Spratt, a microbiologist at London's Imperial College, says that more study is needed to pinpoint the risks from such close encounters.

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