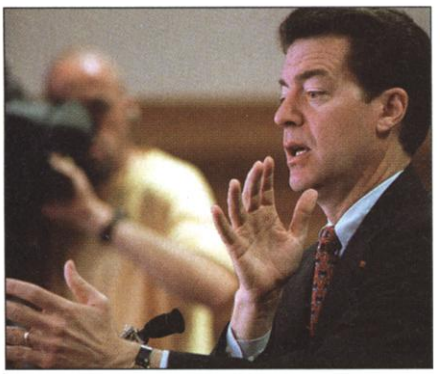
SCIENCE POLICY

Cloning Bills Proliferate In U.S. Congress

Since members of the Raëlian religious movement announced in March that they plan to clone a baby in the United States (*Science*, 6 April, p. 31), anticloning bills have multiplied in both houses of the U.S. Congress. Several scientific organizations fear, however, that legislative attempts to ban reproductive cloning will also block research on "therapeutic" cloning that aims, for instance, to produce genetically matched embryonic stem (ES) cells and coax them to develop into a specific cell type to treat diseases such as Parkinson's.



Opposed. Senator Sam Brownback (R–KS) would like to outlaw all human cloning in the United States.

That's just what Senator Sam Brownback (R–KS) wants. He has been an outspoken critic of ES cell research as well as cloning because it involves destruction of an embryo. (To produce genetically matched cells, researchers would use nuclear transfer to create an embryo with the same DNA as a patient, allow the embryo to grow for a few days, and then culture a line of stem cells.) Brownback, who presided over a 1 May hearing of the Senate Commerce subcommittee on Science, Technology, and Space, has introduced legislation that would outlaw both types of human cloning, imposing a $1 million fine and 10 years in prison on anyone convicted of transferring a human cell nucleus into an egg.

At the hearing, Carl Feldbaum of the Biotechnology Industry Organization in Washington, D.C., and developmental biologist Rudolph Jaenisch of the Whitehead Institute for Biomedical Research at the Massachusetts Institute of Technology in Cambridge agreed that reproductive cloning would be unsafe and unwise. But they argued that therapeutic cloning holds great promise for treating certain diseases and urged that any legislation allow such work to continue.

Countering that view, several witnesses argued that therapeutic cloning is immoral and unnecessary because, they asserted, stem cells derived from adult tissues are as promising as embryonic cells. Some also argued that therapeutic cloning was bound to lead to reproductive cloning. The hardest task scientifically, said bioethicist Leon Kass of the University of Chicago, is creating the embryonic clone; transferring it to a womb is easy. Kass, who helped draft Brownback's bill, told the hearing that a ban on all nuclear transfer experiments with human cells "is the only realistic chance we have of preventing [reproductive] cloning."

Three of the four other bills introduced to date to regulate human cloning are less draconian than Brownback's. In the House, a bill sponsored by Brian Kerns (R–IN) would prohibit only "reproductive cloning," outlawing the transfer of an embryo created by nuclear transfer into a womb. A second, introduced by Cliff Stearns (R–FL), would prohibit federal funding for therapeutic or reproductive human cloning research. A third, sponsored by Vern Ehlers (R–MI), would outlaw all nuclear transfer in human cells "unless the nucleus of the human somatic cell has been modified so that the cell cannot develop to completion." In the Senate, Ben Nighthorse Campbell (R–CO) has introduced a bill that would prohibit the use of cloning techniques "for the purpose of initiating or attempting to initiate a human pregnancy." Another bill is expected in the next few weeks from Representative James Greenwood (R–PA) that would prohibit reproductive cloning, according to his spokesperson, but allow research on obtaining stem cells.

It is too early to know which bills, if any, might make it to the floor for debate, says David Moore of the Association of American Medical Colleges, much less whether any might pass. Science advocates will be following them closely. –GRETCHEN VOGEL

STEM CELLS

DFG Gives Embryo Research a Boost

BONN—Germany's main research funding agency issued new guidelines last week paving the way for researchers to import human embryonic stem (ES) cells from other countries. The Deutsche Forschungsgemeinschaft (DFG) also recommended that Parliament pass a law, if needed, that would allow German researchers to derive their own stem cell lines from surplus embryos from in vitro fertilization (IVF) clinics. "The new guidelines are an important step ahead," says Oliver Brüstle, a stem cell researcher at Bonn University. "This is more than we hoped for 1 year ago."

But scientists hoping to start working with these cells may still have to wait. Germany's

ScienceScope

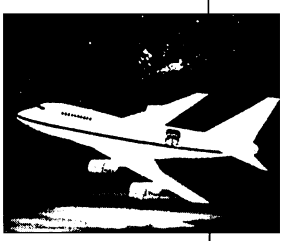
Megamerger Advances A major science publishing merger has cleared a key regulatory hurdle. Anglo-Dutch publishing giant Reed Elsevier said this week that the U.S. Department of Justice will not challenge its $4.45 billion acquisition of U.S. publisher Harcourt General. Research librarians had asked regulators to block the deal, which will give Elsevier control of more than 1500 journals, saying it will drive up prices (*Science*, 3 November 2000, p. 910).

The Association of Research Libraries in Washington, D.C., which represents 120 of the largest research collections in North America, expressed disappointment with the decision. But officials noted that U.K. officials must still sign off on the merger.

Thinking Again Criticism from researchers has prompted the World Medical Association (WMA) to reconsider new guidelines that would restrict the use of placebos in clinical trials. The group last week announced that it will review its 6-month-old interpretation of the Declaration of Helsinki, which urges researchers to avoid using placebos and instead provide test volunteers with either an experimental therapy or the best available current therapy (*Science*, 20 October 2000, p. 418).

But some experts have strongly objected, saying that approach would make it difficult to test certain new drugs. In response, the WMA will "investigate whether the guidelines are likely to restrict good, ethical research in any way," says WMA Secretary-General Delon Human. If rewording is needed, the matter will go to the WMA general assembly this fall.

Grounded A joint U.S.-German flying telescope won't get off the ground until December 2004—2 years later than scheduled. Costs for the Stratospheric Observatory for Infrared Astronomy (SOFIA) have taken off, however. NASA officials say the price of SOFIA, which will put a 2.5-meter infrared telescope aboard a modified Boeing 747 (above), has risen more than 20% to $366 million. Skyrocketing labor costs and technical difficulties are to blame, NASA Administrator Dan Goldin told a House panel last week.



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