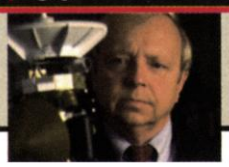


even a thin ocean—would have temporarily heated its interior, expanded the ocean, and flexed a weakened crust. That flexing and the warmth of the ocean could have renewed and brightened the surface, or, as luck would have it, only half of it. Once beyond the resonance, Ganymede would have cooled again, stuck in its two-faced look. –RICHARD A. KERR

EMBRYO RESEARCH

British Parliament Approves New Rules

The British House of Commons has overwhelmingly approved new rules governing research on embryos in the United Kingdom. If the regulation passes the House of Lords, it would allow British scientists to derive and use stem cells from human embryos and to conduct nuclear transfer experiments—the same technology that produced Dolly the sheep—with human cells.

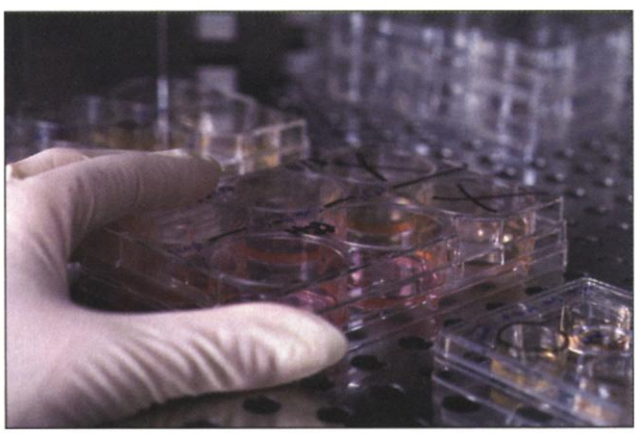
Opponents in Britain and elsewhere in Europe have called the 19 December vote a step down a slippery slope toward human cloning. But supporters deny that, claiming that the new rules ensure strict ethical oversight of this research, which could eventually help treat or even cure such devastating diseases as Parkinson's or diabetes.

The measure passed by 366 to 174 in a "free" vote, in which members were allowed to vote their consciences rather than adhere to a party line. "We had no idea" how the vote would fall, says Robin Lovell-Badge, a developmental geneticist at the National Institute for Medical Research in London who works with mouse embryonic stem cells. "We were very surprised at how strong the support was." The House of Lords is expected to vote on the measure in mid-January.

Current British law, passed in 1990, allows researchers in the United Kingdom to conduct experiments with embryos up to 14 days old, but only for research into infertility, the causes of miscarriage, genetic or congenital diseases, or new methods of contraception. The new regulation would permit research aimed at developing treatments for disease as well.

All such work will be regulated by the Human Fertilisation and Embryology Authority (HFEA), which oversees fertility treatments and also reviews research proposals for scientific and ethical merit before issuing licenses to work with human embryos. Unlike in the United States, where embryo research conducted by private companies is not regulated by the federal government, British researchers who attempt to do embryo research without a license would face criminal penalties, including prison.

The HFEA has already granted several licenses for the derivation of stem cells from embryos, says developmental biologist Anne McLaren of the Wellcome/CRC Institute in Cambridge, U.K. The scientists granted these licenses specified that the cells would be used to study blastocyst quality to better understand infertility.



New rules. The British House of Commons passed a measure allowing scientists to derive human embryonic stem cells for potential disease treatments.

Some opponents of the new regulation wanted a ban on research involving nuclear transfer techniques in human cells. Such work would attempt to create human embryonic cells with the same nuclear DNA as a patient. Those cells could then be used to derive genetically matched stem cells that might be coaxed to produce specific types of cells for treating disease. Last year, a U.K. government panel said that nuclear transfer experiments could be ethically justified if they were used to produce cells for disease treatment (*Science*, 25 August 2000, p. 1269), but opponents have argued that the work could lead to human cloning. "I fear that if we proceed as we are doing, we will open the floodgates," said Edward Leigh (C–Gainsborough) during the parliamentary debate.

German leaders have also expressed dismay about the vote. Minister for research Edelgard Bulmahn told the newspaper *Frankfurter Allegemeine Zeitung* that allowing nuclear transfer experiments in human cells was "breaking an ethical border." German research should focus on exploring alternatives to the cloning of human embryos, Bulmahn said, such as stem cells derived from adult tissues. Health Minister Andrea Fischer agreed. Chancellor Gerhard Schroeder also expressed reservations. He wrote in a statement that Germany "should not yield to calls to relax the ban on the use of embryo stem cells until the potential of adult stem cells in medicine has been properly investigated." –GRETCHEN VOGEL

With reporting by Ohad Parnes in Berlin.

GERMANY

Chipping Away at Feudal Vestiges in Academe

BERLIN—Any young German scientist hoping to carve out an academic career faces a daunting barrier: the notorious post-Ph.D. Habilitation requirement. To be eligible for tenure, young scholars are required to work for 6 years or more as a kind of academic apprentice, dependent on a senior professor for support. Now, this centuries-old academic peculiarity may finally be on the way out.

Last week, the DFG, Germany's central research foundation, announced a new program of "junior professorships" that will provide independent support for young researchers. Beginning in the next few months, young scientists will be able to apply for 3-year support for their own research or group projects they head. At the same time, the German Donor's Association—the country's major private science-funding body—announced that it is starting a program of "research professorships." These will fund university positions for researchers under age 35, with 150,000 DM (about $72,000) annually for a period of 4 years, for independent studies. Priority will be given to new and interdisciplinary areas of research.

Both these new programs present a direct challenge to the hegemony of senior professors, and they are being viewed as key steps in the eventual elimination of the Habilitation requirement. A blue-ribbon committee of scientists and government of-

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