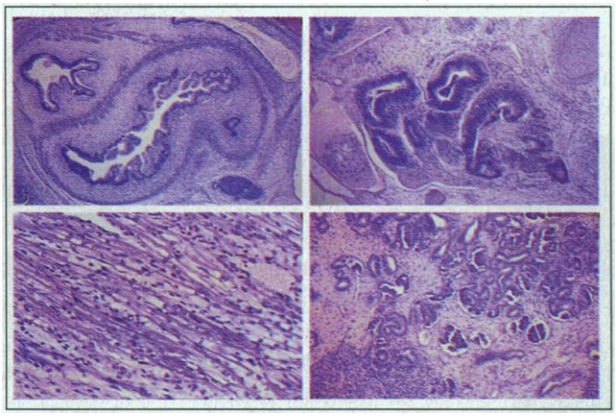
A group of 73 scientists, 67 of them Nobel laureates, offers support for National Institutes of Health Director Harold Varmus's decision to go forward with stem cell research. "We join with other scientific organizations and patient groups in our belief that [the U.S. Department of Health and Human Services's] current position is both laudable and forward-thinking. It succeeds in protecting the sanctity of human life without impeding biomedical research that could be profoundly important to the understanding and treatment of human disease." The letter is in reaction to a recent statement signed by 70 members of Congress urging the U.S. government to ban research on stem cells obtained from human embryos. Chinese science and technology are examined. And the question of whether monkeys can count like humans is explored.

Science Over Politics

Last month, 70 members of the U.S. Congress, including Henry Hyde, Chairman of the House Judiciary Committee, and J. C. Watts Jr., Republican Conference Chairman, signed a letter urging the federal government to ban all research on stem cells obtained from human embryos and fetuses. The letter calls upon the U.S. Department of Health and Human Services (DHHS) to reverse National Institutes of Health (NIH) Director Harold Varmus's decision to allow funding of pluripotent stem cell research. The lawmakers object "in the strongest possible terms" to Varmus's decision, as well as to the memorandum issued in January by DHHS General Counsel Harriet Rabb, which served as the legal basis for Varmus's position. In their letter, the members of Congress state, "Any NIH action to initiate funding of such research would violate both the letter and spirit of the federal law banning federal support for research in which human embryos are harmed or destroyed." Federal laws and regulations, they claim, have protected human embryos and fetuses "from harmful experimentation at the hands of the Federal government" for more than two decades. "This area of law has provided a bulwark against government's misuse and exploitation of human beings in the name of medical progress. It would he a travesty for this Administration to attempt to unravel this accepted ethical standard."



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Human embryonic stem cells differentiated to various cell types, including (clockwise, from upper left) gut, neural, kidney, and striated muscle cells.

We the undersigned urge the Administration and DHHS to support Varmus's decision to allow federal funds to be used for research using human pluripotent stem cells. NIH fully understands and respects the important ethical and moral issues raised by stem cell research and, indeed, has announced plans "to move forward in a careful and deliberate fashion to develop rigorous guidelines that address the special ethical, legal, and moral issues surrounding this research." Before funding any research using pluripotent stem cells, NIH plans to convene a special oversight-group to review all research grant applications in this area. In addition to two thoughtful sets of guidelines that already exist—the 1994 Report of the Human Embryo Research Panel and the regulations regarding Research on Transplantation of Fetal Tissue (section 498A of the Public Health Services Act)—NIH will consider advice from the National Bioethics Advisory Commission (NBAC), the newly established Council of Public Representatives (COPR), the public, and Congress.

We join with other scientific organizations and patient groups in our belief that DHHS's current position is both laudable and forward-thinking. It succeeds in protecting the sanctity of human life without impeding biomedical research that could be profoundly important to the understanding and treatment of human disease. In addition to helping to unravel processes underlying cell differentiation and biological development (which, in turn, could lead to new ways to prevent and treat birth defects and cancer), the use of human pluripotent stem cells could potentially reduce the number of animal studies and clinical trials required for drug development and testing. The implications of this research for clinical medicine are equally enormous. Stem cells could be used to generate a long list of cells and tissues that could be used for transplantation. Myocardiocytes, for instance, could be injected into the heart, to heal myopathies and scars; neurons could be transplanted into the brains of patients with neurodegenerative disorders such as Parkinson's disease; and insulin-producing beta cells could be used to treat—or perhaps even cure—patients with diabetes. DHHS must remain diligent in allowing pluripotent stem cell research to go forward. If Congress succeeds in reversing Varmus's decision, these tremendous scientific and medical benefits may never become available to the patients who so desperately need them.

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*As of 15 March, joining Advanced Cell Technology.
†Nobel laureate

Editors' note

Stem cell research is one of the areas being pursued by the company Advanced Cell Technology. Another letter supporting stem cell research, led by Paul Berg, representing the American Society for Cell Biology, and signed by 33 Nobel laureates (many of them also signers of the above letter) was sent directly to President Clinton and Congress on 8 March.

Basic Research in China

It is with great pride that I see science and technology in China rapidly moving forward and being one step closer to that in the developed countries (Zhu Lilan, Editorial, 29 Jan., p. 637). The rapid pace of science in China in recent years can be attributed to its outward-looking policy in general. China did, as Zhu, its Minister of Science and Technology points out, contribute greatly to ancient science and technology, but it fell behind in modern times. This may have been largely due to political interference and, sometimes, the lack of understanding by the government. In order to ensure the continued success of science and technology development in China and to move at an accelerating pace, several crucial principles need to be ensured. Scientific researchers and technological innovators must (i) be free of political interference and top-down interference from management; (ii) be free to access information on the Internet; (iii) have no charges for Internet access (especially students); (iv) have easy access to the latest research journals and books (especially young researchers and students); (v) have freedom of selection of research projects; (vi) have a system of merit-based promo-