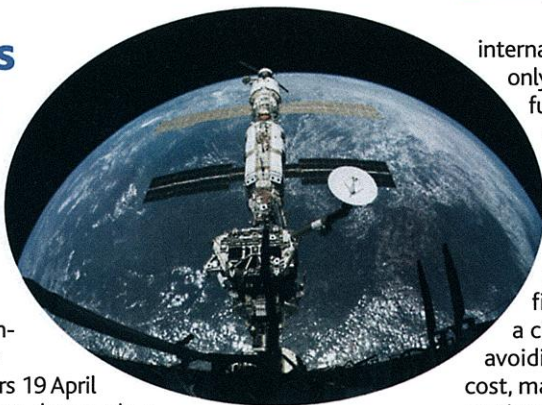


Hard Hats in Space

Combine Tom Cruise's sexily authoritative voice with stunning 3D visuals and cool music, and you really can't go wrong. A new movie on the construction of the international space station opened at 24 U.S. theaters 19 April and will soon be shown in a dozen other countries. Filmed by astronauts and cosmonauts orbiting 400 kilometers above Earth, *Space Station 3D* chronicles the first assembly missions of the international laboratory, which began in 1998.

The movie, which premiered at the National Air and Space Museum in Washington, D.C., gives viewers a you-are-there pounding ride on the space shuttle into orbit, a vertiginous walk across the outside of a space station module, and an intimate look at the oddities of eating, drinking, and working in microgravity. "Until now, the



international space station was only accessible to the handful of men and women working there," says Toni Myers, who produced and directed the movie.

Funded by NASA and aerospace contractor Lockheed Martin, the film understandably takes a cheery thumbs-up view, avoiding all mention of the cost, management, and diplomatic troubles that have plagued the multibillion-dollar program. But it does show how tough it is to piece together a fantastically complicated array of modules, solar panels, nodes, and docking ports made by different companies and countries, all while working in cumbersome suits in a deadly vacuum. And the job's not done yet—the final pieces of the station won't be attached until late in the decade.

The 21st Century Student

"I finally got my first student who thought that journals are published only on the Web. He didn't know you could get paper copies. I guess that's progress."

—Fisheries scientist Daniel Pauly of the University of British Columbia, Vancouver, at a recent Washington, D.C., talk for congressional staff

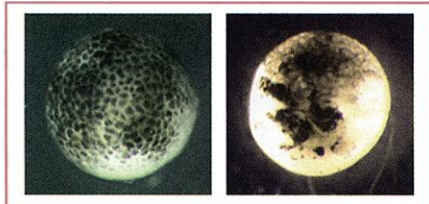
Dependable Cells From Defective Embryos

Experiments with doomed frog clones could strengthen the argument for allowing human cloning research—or so some scientists think.

In most animal cloning experiments, no more than 2% of embryos develop into full-term offspring. But even severely abnormal embryos can produce apparently normal tissue, report scientists at the Wellcome Cancer Research Institute in Cambridge, U.K. That means that damaged human embryos that could never develop into a baby could still yield cell lines useful for studying development or someday treating disease, a trio of researchers note in a 23 April online paper published by the *Proceedings of the National Academy of Sciences*.

John Gurdon and his colleagues James Byrne and Stina Simonsen inserted nuclei from frog intestinal cells into 110 enucleated frog eggs. But they got only one normal-looking tadpole. The rest of the embryos derailed at some point in development, and about one-quarter of them were drastically abnormal: misshapen and

with half their cells dividing incorrectly. Left alone, they died within 24 hours. But when the team transferred cells from these doomed embryos into healthy embryos and tadpoles, the cells survived and became



Seven-hour-old frog blastulae, healthy and defective.

part of apparently healthy muscle, backbone, and skin tissue.

The result "shows you don't need a healthy embryo" to produce potentially useful cells, says biologist Rudolph Jaenisch of the Whitehead Institute in Cambridge, Massachusetts. And Gurdon says the finding could reduce opposition to so-called therapeutic cloning, which some opponents argue is unethical because it destroys a potentially healthy embryo to create cells for research and treatment.

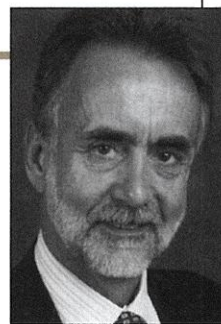
The Global Fund to Fight AIDS, Tuberculosis and Malaria, established this past January, roared into action last week. At a meeting of the governing board in New York City, the fund announced its first round of grants and named a permanent director, British global health expert Richard Feachem.

The board announced that it has selected 40 programs in 31 countries into which it will pour \$378 million. Slightly more than half the programs are in Africa, and 60% are devoted to attacking AIDS, with drugs, materials, public education, and training of health care workers. Over the next 2 years the total outlay is expected to reach \$616 million.

Feachem, 55, a tropical medicine expert and former official in the World Bank health program, is founding director of the Institute for Global Health at the University of California, San Francisco, and Berkeley. Seth Berkley

of the International AIDS Vaccine Initiative calls Feachem a "tireless advocate" and a "wise and fair man."

The Geneva-based fund, started in response to the global "crisis" in new and resurgent diseases, was conceived of as a relatively red tape-free model of public-private cooperation in dispensing massive aid to the world's poor. Eight nations have so far pledged \$2.08 billion to the fund, led by \$500 million from the United States. The largest private donor is the Bill and Melinda Gates Foundation, which has anted up \$100 million. While the Fund has moved with impressive speed, some observers worry that its selection of projects has been hasty and done with inadequate assessment of local capacities.



Feachem

Disease Fund Takes Off