



**Happier times.** Physicist Xiaomei Jiang, second from left, with her parents before their deaths took her back to China.

create a special visa for researchers with solid credentials and invitations from U.S. scientists, and consult with U.S. scientists on which fields should raise red flags.

Consular officials have a strong incentive to err on the side of extreme caution, the statement notes, as they face criminal penalties for granting visas to terrorists. The academy presidents urge the State Department to create some type of counterweight that would also encourage the officials to smooth the way for "scholars who benefit our nation." A State Department official familiar with the problem says the suggestions are "helpful and on target; we're already working to make them happen." But he and White House officials warn that progress could be slow. Congressional action might be needed to address the consular liability issue, which is enshrined in law, or to carve out special visas for visiting scientists.

Recent enrollment statistics suggest that the delays are so far having a limited impact on U.S. academic life. The number of foreign students at 20 major research universities rose by 4% this fall, to 36,656, according to a survey released last month by the Association of American Universities. But there has been a 10% drop in the number of foreign faculty members and researchers on campus, the survey found, and more students and scholars reported visa delays or denials than in the previous year. Those numbers could climb in the short run, as the government struggles to beef up security reviews and begin monitoring foreign students studying in "sensitive" fields. On 12 December, the State Department unveiled one monitoring program, and more plans are expected shortly.

In the meantime, Jiang's colleagues say they miss her and her talent in running key experiments. They also worry that her visa

troubles could sour the promising physicist, who co-authored a paper in *Science* on plastic lasers (4 February 2000, p. 839), on her long-term career prospects in a country that once welcomed her for training.

—DAVID MALAKOFF

#### STEM CELL MEDICINE

## Stanford Gets Gift for New Institute

Stanford University last week announced the formation of a new, privately funded institute to marry research on stem cells and cancer in a search for new therapies. The announcement precipitated a brief media flurry over the issue of cloning, leaving university officials scrambling to beat down press accounts that suggested the school might become a baby factory.

A \$12 million gift from an anonymous donor has kicked off the Institute for Cancer/Stem Cell Biology and Medicine, to be headed by hematopoietic stem cell researcher Irving Weissman. The university will build on existing faculty research but also hopes to recruit more scientists. Stanford medicine Nobelist Paul Berg says the goal is to raise \$100 million to support research on genetically based treatments for cancer, Parkinson's disease, heart disease, and other illnesses.

Stanford got in hot water after the institute stated an intention to develop new human embryonic stem (ES) cell lines to study particular diseases. During an interview with the Associated Press (AP), Weissman acknowledged that scientists might someday try to create human stem cell lines for this type of research through nuclear transfer—otherwise known as therapeutic cloning. The resulting AP story, declaring that "Stanford University has announced its intention to clone human embryos," forced Stanford officials to hold a press conference immediately to deflate the brouhaha. They followed it with a statement emphasizing that "creating human stem cell



**Stem cell flap.** Press reports muddled the focus of Irving Weissman's new center at Stanford.

## ScienceScope

**Neutrinos, Take Two** It's not wasted effort to build two different laboratories to look for neutrinos, a National Academy of Sciences panel concluded last week. The verdict is welcome news to proponents of converting South Dakota's Homestake gold mine into the world's deepest underground laboratory.

Earlier this year, a budget-conscious White House asked the academy to assess U.S. neutrino detectors, with an eye toward avoiding duplication (*Science*, 5 July, p. 31). The panel, chaired by physicist Barry Barish of the California Institute of Technology in Pasadena, focused on the Antarctic IceCube project and an underground lab, concluding that both projects are important. Whereas IceCube looks at astrophysical objects by using neutrinos, an underground lab would directly study the nearly massless particles, which are produced by the sun and other cosmic objects.

The report won't assure Homestake's creation, however. The mine's owners haven't resolved legal issues with the government, and the National Science Foundation hasn't said if it will seek an estimated \$300 million in start-up funds. Congress, meanwhile, has started funding the \$240 million IceCube project.

**Journal Goes Public** With a \$9 million, 5-year grant from the Gordon and Betty Moore Foundation, Nobel laureate Harold Varmus and other biologists are setting out to publish a model "open-access journal" in biology. Varmus, president of the Memorial Sloan-Kettering Cancer Center in New York City, teamed up with Patrick Brown of Stanford University and Michael Eisen of Lawrence Berkeley National Laboratory in California to secure funds and staff for the venture, with Varmus serving as chair. Their aim is nothing less than to "create a new economic model in scientific publishing"—a low-cost operation that will not charge for articles but would pay its way with authors' fees (estimated at \$1500 per article initially).

In 2000, these scientists organized a movement called the Public Library of Science (PLOS) to advance open-access publishing. Their international appeal garnered 30,000 pledges of support, including a threat to boycott journals that do not make their content available for free. That threat was not carried out because authors didn't have a good alternative journal to turn to. But now they do, Varmus says: *PLOS Biology's* first issue will appear "in the latter part of 2003."



seems for two reasons. First, it's based on the president's 2003 request for a 5% hike, a number that Congress is almost certain to surpass when it finishes work next month on the budget for the fiscal year that began 1 October. (The House has already approved a 13% increase, and a Senate panel has endorsed a 12% hike.) Second, before calculating the 9% increase, budget officials subtracted \$76 million from a dead-on-arrival proposed transfer of funds to NSF from three other agencies. The result is a presidential request of roughly \$600 million over 2002 levels, which exactly splits the difference between the \$633 million hike for 2003 approved by the House and the \$564 million added by the Senate panel.

There's no sugar coating on the NIH request, which sources say is a mere \$50 million over the expected 2003 total of \$27.3 billion. HHS Secretary Tommy Thompson is pushing for his original 5% request. But NIH watchers are dubious of anything more than the 2% that the White House has projected for future years. And unlike previous years, nobody is counting on Congress to come to NIH's rescue.

—JEFFREY MERVIS AND JOCELYN KAISER

## HIGH-ENERGY PHYSICS

### CERN Council Chooses ITER's Head as Chief

Europe's premier accelerator laboratory has elected a director general without training in particle physics but skilled in managing large projects. That's no accident: CERN's governing council made it clear last week that building the Large Hadron Collider (LHC) on time and within budget is the lab's top priority, with everything else—including a streamlined research portfolio—taking a back seat.

The new leader is Robert Aymar, a 66-year-old French plasma physicist who currently directs the International Thermonuclear Experimental Reactor (ITER). A multibillion-dollar international tokamak project, ITER has survived a downsizing of its original design and the withdrawal of the United States before regaining its momentum; the partners are now in the final stages of selecting a site (*Science*, 20 September, p. 1977). That performance under fire was not lost on the CERN council. "For the time being,

CERN's activities are centered about building the LHC and not exploiting the science, and [Aymar] has long-standing experience," says Jean-Pierre Ruder, the Swiss delegate to the CERN council. The outgoing director-general of CERN, Luciano Maiani, agrees: "I find that Aymar is very well qualified, even though he's not a particle physicist."

Aymar, who will begin his 5-year term in January 2004, is best known for directing the Tore Supra project, which used a large magnetic bottle called a tokamak to study very hot plasmas. But he also has had a lot of exposure to particle physicists. During the 1990s, he oversaw particle-physics experiments as head of the Sciences of Matter directorate of France's atomic energy lab, CEA. He also helped design the LHC and chaired the LHC external review committee when the project ran into budgetary problems (*Science*, 5 October 2001, p. 29). "I was involved in the decisions about the LHC at all levels," says Aymar. "The big challenge [now] is to make sure that the LHC is achieved correctly. The timing should be controlled by technology concerns, not financial ones."

Financial concerns have dominated CERN for more than a year. A 30% cost overrun in the LHC's \$1.6 billion budget has forced the council to shut down several key experiments in 2005 and pare research and development projects to a bare minimum. Although the council's acceptance of the cuts last week was no surprise—the details had been announced earlier this year (*Science*, 29 March, p. 2341)—physicists remain concerned about the impact of the cuts. "It leaves very little scope for preparing for the long-term future," says

Phil Allport, a physicist at Liverpool University in the U.K. and adviser to CERN. "There's pain in the lost physics programs, but more pain in the strategic R&D that underpins CERN's future post-LHC." According to Aymar, the damage can be mitigated by a closer collaboration between



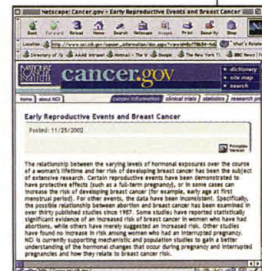
**New boss.** Robert Aymar (top) joins CERN as devices such as the Super Proton Synchrotron (bottom) face temporary shutdowns.

## ScienceScope

**Facts in Flux** The National Cancer Institute's (NCI's) views on whether abortion raises a woman's risk of breast cancer continue to evolve. And researchers are hoping that the next iteration reflects good science rather than politics.

In March, NCI officials put out a fact sheet, updated with recent studies, that concluded abortion wasn't a risk factor. In June, new NCI director Andrew von Eschenbach ordered his staff to pull the fact sheet after 28 abortion opponents in Congress disputed NCI's conclusions (*Science*, 12 July, p. 171). Last month, however, NCI announced on its Web site that the evidence is "inconsistent." It plans to hold a workshop to explore the molecular mechanisms by which hormonal changes during pregnancy protect against breast cancer.

NCI epidemiologist Robert Hoover welcomes the workshop, tentatively slated for February, saying that he has wanted to convene experts on this broader topic for years. But attendees will be asked to do more than just talk science, says NCI spokesperson Mike Miller. The institute is looking for a "statement" on what its abortion fact sheet should say.



**Opening Up in Japan** Japanese legislators have endorsed the drive to give research institutions a freer hand in managing their affairs, passing a package of laws that will allow several government corporations to become independent agencies.

The changes, approved last week, should let institutions adopt personnel policies that deviate from national regulations. They also allow agencies to hold over excess cash from year to year, helping stabilize long-term projects. The laws affect the Institute of Physical and Chemical Research (RIKEN), the National Space Development Agency, the grant-giving Japan Science and Technology Corporation, and a handful of other science-related organs.

"We're not expecting major changes," says RIKEN president Shun-ichi Kobayashi. But there is uncertainty about the future. One issue: the relationship that a new government panel created to evaluate RIKEN's performance will have to RIKEN's long-standing external review committee. The changes go into effect next fall.

**Contributors:** Charles Seife, Eliot Marshall, Jocelyn Kaiser, Dennis Normile