sky of Moscow's Institute of Experimental Cardiology.

By providing money to supplement the salaries of postdocs, the Hughes grants may help stem a two-pipe "brain drain" from their countries' scientific establishments. Talented young scientists are emigrating to the West, and at home, an increasing number of students are choosing careers in business over science. The loss is felt sharply at the postdoc level. "The biggest impediment [to doing research] is the lack of close friends and colleagues who were working with me for many years but had to take jobs abroad," says cell biologist Fatima Gyoeva, a grantee at the Institute of Protein Research in Moscow.

For some scientists, the grants will help them realize dreams shattered by the economic chaos left after the demise of communism. In 1990, Vladimir Bashkirov became head of the genetic recombination lab in a brand-new Institute of Gene Biology in Moscow. The lab's opening "coincided with the beginning of great cuts in science funding," says Bashkirov. "All we had was old equipment and enthusiasm," he recalls. "You can imagine how glad we were to get an HHMI grant. Now we can go on with our project," he says. Although equipment in Eastern Europe and Russia costs up to twice what it does in the United States, grantees estimate they will have enough funds for small items and chemicals.

Big-ticket items, like an electron microscope, are another story. Jolanta Vidugiriene of Vilnius University in Lithuania says she must spend a third of her grant money this year on a single item: an ultra-cold freezer. "It's important to realize that the grant award will only partially cover the numerous expenses involved in running a productive research program," she says.

A more serious concern is that local institutions will penalize HHMI recipients by chopping the funds they get from other sources. It's not just a theoretical worry. Vadim Mesyanzhinov, a molecular biologist at the Ivanovsky Institute of Virology in Moscow, won an HHMI award to work on protein folding in collaboration with Michael Rossman at Purdue University in the United States. But Mesyanzhinov says that when a Russian science agency heard about the HHMI grant, it stopped funding his lab. "They think we have a lot of money from HHMI," says Mesyanzhinov, who sees a potentially dangerous new trend: "Successful research attracts a bigger grant that makes further research impossible." HHMI's Choppin says that "it's regrettable that an institute would take this point of view," but "it's not something we can control."

Despite such obstacles, most grantees say they are embracing the prospect of 5 years of steady funding and productive research. "Something I really like about the award is being sure that the money will come, and that it will not be greatly devalued," says Malgorzata Kossut of the Nencki Institute of Experimental Biology in Warsaw. In uncertain times, a little certainty—and a little funding—can go a long way.

–Richard Stone

SPACE SCIENCE

House Panel Targets Centers, Cassini

Space science is the clear loser in a radical 1996 budget approved earlier this week by a House panel that funds the National Aeronautics and Space Administration (NASA). The measure would halt work on Cassini, an international $3.5 billion probe to Saturn slated for launch in 1997, and would close the Goddard Space Flight Center in Greenbelt, Maryland, which oversees the bulk of NASA's space science work. The international space station, space shuttle, and proposed $8 billion Earth Observing System (EOS) emerged unscathed in the bill, which would also hold the National Science Foundation (NSF) to $100 million below its current $3.26 billion budget and reduce research funding by 1%.

Led by Representative Jerry Lewis (R–CA), the House appropriations subcommittee for housing, veterans affairs, and independent agencies chopped NASA's budget for 1996 to $13.5 billion—$837 million less than this year. The subcommittee also sought to squeeze out longer term savings by "essentially closing" Goddard, Marshall Space Flight Center in Huntsville, Alabama, and Langley Research Center in Hampton, Virginia, by 1998, according to committee documents. Marshall specializes in propulsion, while Langley is a center for aeronautics research. The three centers employ more than 10,000 people. Much of Goddard's work would be shifted to the Jet Propulsion Laboratory in Pasadena, California; Langley's work would go to Ames Research Center in Mountain View, California; and Marshall's missions would be spread out among several centers.

Critics vowed to fight the plan as it works its way through Congress, noting that Lewis's state is a big winner in the reshuffling. "The House proposal to cut Goddard is preposterous and purely political," says Senator Barbara Mikulski (D–MD). "There will be a cohesive united front against this," added a congressional staffer.

The plan to cancel the Cassini probe to Saturn stunned space scientists. The program, which includes major Italian and European Space Agency cooperation, aims at delivering a probe to Saturn's moon Titan and a battery of scientific instruments to monitor the planet. NASA has already spent about $1 billion on Cassini; it needs more than $300 million to complete the project and between $750 million and $1 billion to operate it during the life of the mission. Other costs include $450 million to launch the spacecraft and contributions from other federal agencies and foreign partners.

"Cutting Cassini now is ludicrous and crazy," argues Lou Friedman, executive director of the Planetary Society in Pasadena. "It would be bad, bad, bad," warned one European space official. "It's staggering," says Glenn Mason, a University of Maryland astronomer who monitors space science policy.

The bill would also halt funding for Gravity Probe-B, a $580 million mission to measure effects predicted by relativity theory (*Science*, 24 March, p. 1756), and it would put on ice NASA plans to build the Stratospheric Observatory for Infrared Astronomy and the Space Infrared Telescope Facility. Other smaller projects would also get the ax.

House aides say the cuts are Lewis's response to a tight budget, the high priority allotted the space station, and NASA's failure to provide a comprehensive plan to restructure EOS, a constellation of environmental satellites. Space science programs, they add, offer the potential for clear savings.

Administration officials were caught off guard by the attack on NASA but vowed to take action. "We will fight for space science and to keep a balanced NASA program," says Skip Johns, associate director for technology at the White House Office of Science and Technology Policy. Vice President Al Gore spoke with Lewis hours before the markup but failed to stave off the cuts.

The panel was much kinder to NSF, which would receive $3.16 billion—$200 million below the president's request and 3% below current levels. The panel endorsed NSF's plan for no growth in the $600 million education directorate and for $100 million for academic facilities and wiped out the proposed 8% increase in NSF's $2.28 billion research account, leaving it with $2.25 billion. And although the Environmental Protection Agency's budget was cut by a third, research and development would receive $384 million, a 10% boost and only slightly below the president's request.

The full House Appropriations Committee is slated to take up Lewis's bill on 18 July. The measure must then go to the House floor. Given the radical surgery that's been proposed for NASA, observers expect a summer of budgetary fireworks that could rival last week's Independence Day celebration on the Mall.

–Andrew Lawler