safety certification. The measure is the brainchild of Representative James Sensenbrenner (R–WI), who chairs the House Science Committee and has been a relentless critic of U.S. cooperation with Russia in space. Sensenbrenner's concerns have been fed by Russia's slow pace in funding its portion of the international space station—the first module of which is slated for launch in just 1 year—as well as a fire and assorted other technical problems aboard the 11-year-old Mir.

"I, for one, can no longer sit idly by as mishap after mishap occur while we continue to plan the next shuttle mission to Mir hoping for, but not really expecting, the mission will succeed without a potentially life-threatening situation," Sensenbrenner said hours after the accident. Sensenbrenner demanded that Goldin immediately launch an independent review of Mir safety and complete it before the next U.S. crew arrives at the station in September to relieve U.S. astronaut Mike Foale. Sensenbrenner told the NASA chief in a private meeting last week that he wants the agency to abide by the certification measure, even though it is not yet law.

One Administration official downplayed the need for an independent review. "NASA already has experts working on this," he says. In the meantime, "we're committed to our space partnership with Russia."

But if NASA does conclude that safety standards are not up to par on Mir and forbids U.S. astronauts to work on the station, it would end what Administration officials say is a critical effort to conduct a host of experiments—from biological to engineering to materials science—in preparation for the international station. "The experience has been difficult, but we're learning from it," says the Administration official. The current mission is the sixth planned U.S. visit out of nine scheduled.

For now, however, Foale will have little science to conduct. Much of the U.S. equipment—including a protein-crystal experiment and some biological devices—is in Spektr, which is sealed off until cosmonauts can patch the hole and repressurize the chamber. The first priority, however, is to fix the damaged power system; a space walk has been scheduled for next week to examine Spektr from the outside.

It's not clear whether the equipment is still in working order after being exposed to the vacuum and cold of space. The module, which was attached to Mir in 1995, also contains Russian geophysical and remote-sensing equipment. But the larger question is whether Mir can continue to serve as an experiment for cooperation among the former superpower rivals.

**–Andrew Lawler**

ITALY

# New Rules Provoke Scramble for Funds

VENICE—Italian university researchers are in a state of near panic this month following the mid-June call for grant proposals under the government's new scheme for funding university research collaborations. Not only are the deadlines tight—applications are due by the end of July—but the ministry for universities and research (MURST) has instituted stringent new requirements for receiving funds. Any joint research between separate groups within a university or groups at different universities must get up to 60% of its funding from a separate source, public or private, to qualify for the new MURST grants.

Across the country, there is now a mad rush to find academic partners with the right funding connections. Already, some researchers are criticizing the new system. Physicist Giorgio Benedek of Milan University says he and his colleagues are still trying to make sense of the new rules. Earth scientist Claudio Eva of Genoa University fears that "the rich will get richer, the poor poorer." Finding partners will be impossible in some cases, particularly in the humanities, he believes, and "many [researchers] are not even going to try." Eva thinks that the new system "is a way to level down, to kill off scientific research, especially frontier, innovative, individual, new directions," because the rules tend to favor large, well-organized collaborations.

Since 1993, MURST has channeled its funding for university research into two streams. Of the $150 million annual budget, 60% has gone straight to the universities to distribute to their own researchers; the remaining 40% ($60 million) has been awarded as grants to collaborative projects. Fourteen subject committees, elected by researchers, awarded the grants without peer review—a system many believed was open to abuse, because committee members could have a personal interest in individual projects. Last month, however, Science Minister Luigi Berlinguer announced a thorough overhaul of the system.

Berlinguer upped the collaborative project budget to $90 million, to include additional funding for large items of equipment. He also replaced the subject committees with a single panel of five senior academics (see table), who will decide each application based on the reports of two referees. According to Carlo Calandra, a member of the new grants committee and president of the National Institute for Physics of Matter in Genoa, the only criterion for selection will be scientific quality. The emphasis, he adds, will be on basic research, with no particular requirement that proposals be innovative or have immediate applications.

Berlinguer also introduced the new requirement of cofunding: Intrauniversity applicants must have 60% of their funding up front, while interuniversity collaborations must secure 40%. Cofunding will allow the support of "more significant and expensive projects," rather than the many smaller projects of the past, says a MURST spokesperson. Franco Jovane, also on the new grants committee and director of the National Research Council's Institute of Industrial Technologies and Automation in Milan, told *Science* that the new mechanism will allow university scientists to pursue "free research ... driving the entire research system ahead."

In spite of the challenge researchers may face in finding partners, the grants committee is likely to receive a mountain of proposals from the nation's 60 universities, from which it will make its selection by the autumn. "Every individual research group will be considering an application," says Gianni Orlandi, dean of engineering at University "La Sapienza" in Rome. But Calandra believes that if the committee is stringent this year, there will be fewer proposals in the future. "The best improvement is ... that we will be selecting only a few, specific proposals and financing them completely. In the past, there was the tendency to finance everything," he says.

**–Susan Biggin**

*Susan Biggin is a science writer in Venice.*

**THE TEAM OF FIVE**

| Name | Affiliation | Specialization |
|---|---|---|
| **Carlo Calandra** | President, Natl. Inst. for Physics of Matter, Genoa; University of Modena | Structure of matter |
| **Paolo Fasella** | University of Rome "Tor Vergata"; Chair, Synchrotron Elettra, Trieste | Biochemistry |
| **Franco Jovane** | Director, CNR* Inst. Industrial Technologies & Automation, Milan; Milan Polytechnic | Industrial production systems |
| **Sabatino Moscati** | University of Rome "Tor Vergata" | Semitic philology |
| **Giorgio Pastori** | Catholic University of Milan | Administrative law |

*National Research Council