EX-SOVIET SCIENCE

Soros Foundation Launches \$100 Million Relief Effort

While Western governments have slowly been putting together programs to assist scientists in the former Soviet Union, a small New York-based foundation has seized the initiative. The Soros Foundation, headed by Hungarian-born billionaire financier George Soros, was scheduled to announce this week the establishment of a \$100 million fund to aid science in the former Soviet Union—an amount that dwarfs all previous efforts.

Called the International Science Foundation for the FSU, the fund is designed to provide emergency resuscitation for foundering research groups and to try to reverse the brain drain of scientists to the West. In the long run, Soros hopes, the aid program bolstered by efforts of other private groups offering similar assistance on a smaller scale —will foster the replacement of a bureaucracy-ridden science establishment with Western-style merit-based research awards and financial management.

Soros, who left Hungary in 1947 at the age of 17, has long been trying to sow the seeds of Western institutions in Eastern Europe and the former Soviet Union. Labeled by Esquire the "world's greatest money manager"-he established the Quantum Fund, which is now said to be worth \$7 billion-he has donated millions to cultural foundations he started in East bloc countries throughout the 1980s. According to one longtime friend, biologist Valerie Soyfer of George Mason University, Soros' decision to jump into ex-Soviet science in a big way was facilitated by the reportedly close to \$1 billion he reaped in September from European currency speculation. ("The resources are larger [by about \$50 million] than they would be otherwise," Soros later told Science.)

Evolving plans. A central figure in the effort is another Soros friend, émigré biologist Alexander Goldfarb of the Public Health Research Institute in New York, who is coordinating the enterprise. As *Science* went to press, a meeting of Russian and American scientists was scheduled to be held in New York on 8 December to finalize the plans, and announcements were expected the following day in Moscow, by Russian minister of science Boris G. Saltykov, and in Washington, D.C., at the National Academy of Sciences.

Many aspects were still being debated at the last moment by an (still evolving) advisory council containing 50 or 60 scientists including a clutch of Nobel Prize–winners such as Joshua Lederberg and David Baltimore of Rockefeller University, and a number of prominent émigré scientists. A "statement of principles" gives the dimensions of the effort, however: \$100 million will be disbursed over 2 years for basic research and graduate education in the sciences, with "the possibility of continued support after that period." Overseeing the effort will be a board of a dozen or so scientists appointed by Soros.



Savior of Russian science? Wall Street financier George Soros.

Policy and operations will be run by an executive committee, which will establish "disciplinary commissions" and panels of experts. And since peer review is utterly foreign to ex-Soviet scientists, U.S. researchers will provide that function initially, says Goldfarb, with responsibility shifting as the republics slowly begin to build their own systems.

The operation will be launched in two phases. First, about \$6 million in emergency 6-month stipends will go to small research groups (with a cap of \$600 per individual), and \$2 million is being allocated in emergency supplements to collaborative projects with U.S. researchers. Applications will be solicited immediately, subjected to quick reviews based on a scientist's record and references, and funded retroactively as of 1 January. Phase two, to start next April, will involve the allotment of \$85 million, most of it to individual principal investigators. Awards will follow established Western procedures for submission of proposals, peer review, and grant management. Postdoctoral fellowships and endowed professorships, as well as sup-

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port for travel, equipment, and libraries, are also being planned.

The goal of the first stage is to keep crucial parts of the former Soviet research system alive. The second stage, by shifting the focus to the individual investigator, should help move ex-Soviet science out of the grip of what biologist Maxim Frank-Kamenetsky labels the "feudal, obsolete" academy system. This, in turn, is expected to lead to the strengthening of university-based research and the creation of new links between research and teaching. "The major point is not to give money to institutions," emphasizes Frank-Kamenetsky, a researcher at the Institute of Molecular Genetics in Moscow and department chairman at the Moscow Physical Technical Institute, and another Soros pal. Ultimately, institutions will be encouraged to establish their own accounting procedures, but for now, money will go straight to researchers, Goldfarb says. Individual scientists will draw monthly stipends from bank savings accounts set up for them by the foundation, and equipment purchases will be charged directly to the foundation, which will have a Moscow bureau in addition to its New York headquarters.

Teamwork. Other private foundations are taking a similar tack, albeit on a smaller scale. The Sloan and MacArthur foundations are committing some of their resources to former Soviet science, as is the James S. McDonnell Foundation, which on 7 December announced \$1 million worth of grants in cognitive and neuroscience. And the Howard Hughes Medical Institute, which over the past 3 years has been expanding outside of the United States, is studying the possibility of a 5-year, \$14 million grants program in Eastern Europe and the former Soviet Union. Much remains to be sorted out, but Hughes president Purnell Choppin says officails are hoping to have plans ready for approval by the board of trustees in February, and to start identifying eligible researchers soon afterward.

'Absolutely fantastic and unbelievable" is how Frank-Kamenetsky sees the plans. Only a few years ago he himself was arguing for the introduction of Western-style peer review and grant systems. But his optimism is tempered by one major caveat: "The situation in science is so devastating now....I'm not sure the patient is still alive." Soyfer echoes this concern, arguing that the "internal brain drain"-gifted young people who are no longer choosing to go into science-is more devastating than the hemorrhage of scientists out of the country. Change will take at least a generation, he warns, since ex-Soviet scientists are faced with nothing less than the need to learn a "new method of thinking." But, he says, "I am very optimistic" that the Soros money will supply the leverage to start turning the system around. -Constance Holden