

References

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International Programs and Scientists in the Former Soviet Union

Scientists in the former Soviet Union (FSU) appreciate help from Western colleagues and international organizations. However, cultural differences and mutual misunderstanding bring some problems that undermine the effectiveness of current programs. I think it useful to list some general points, in a random sequence.

- Besides the International Science Foundation (ISF), there still are no institutions in the FSU that provide grants based on open competition and reliable expertise. Funding in the Soviet Union used to be a kind of trade; often the same people distributed and benefited from a grant. The term

"conflict of interest" is unknown there. Thus, in trying to change the mentality of people in the East, it is important to do everything in an open-handed way.

- Long-term experience taught researchers in the East to think that the main aim of collecting open proposals was to collect new ideas and information that could be used by those having access to the files. Not once in the Soviet era were slightly modified, previously rejected proposals successfully submitted on behalf of another research group.

- Many scientists in the FSU think that the main aim of the ISF small-grant program is to collect a personal data bank. Therefore, they consider themselves not awarded, but just paid for the information provided.

- The illusion is widespread in the East that Western scientists are much less creative than their Eastern colleagues. This assumption is based on a common practice of using Eastern results without proper referencing of work from the West. Therefore, the ISF larger grants program is considered by many to be an easy way of collecting new ideas and results. If each proposal is not given a short analysis that proves serious consideration and honest

competition, the program will produce undesirable side effects.

- The advertising campaigns usually do not correspond to the real value of awards, and this brings some disappointment even to those awarded.

- There is still no routine way for FSU scientists to get financial support for their participation in international conferences. They often travel at their own expense. Conference organizers ought to consider reducing registration fees for scientists from countries where such a fee may equal one-month's salary.

- Nonmilitary and basic sciences, which lack lobbying groups and means of direct pressure on the local and national authorities, suffer the most.

- Time is critical, and it is often lost: when support comes, the recipient may already have lost his position.

- People in the FSU used to live in a kind of corporate state; therefore, they usually cannot distinguish between the supportive scientific community and the discriminative visa policy of a foreign country.

- Close contacts with FSU governmental bodies can discredit international scientific organizations in the eyes of the public because the majority of these governments do

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not yet enjoy people's support and are considered to be corrupt and irresponsible. Superficially, it looks like giving the money to the same people who are responsible for the decline of science.

● Because of an undeveloped infrastructure, the contacts of international organizations with FSU scientists go through Moscow. A not unexpected side effect is that most of the laboratories awarded funds by the ISF, for example, are located there. Top-level officials from the government and the Academy of Science are skilled in dividing a pie to their own benefit. Evidently, international contacts are much easier for Muscovites to make than it is for scientists from other regions; but that does not mean that Moscow is the only home of Russian science. On the other hand, the demands from new republics to contact them directly, although justified, can hardly bring much new. Unfortunately, besides the Baltic states, all of them have suffered heavy losses in research because of aggressive nationalism, lack of a system of national priorities, and economic decline. Having lost financial support for the projects in Russia that received recent ISF awards (and were thus considered successful and promising in the

West), I gratefully accepted an award from the U.S. National Research Council that permitted me, in this situation, to continue my research in the United States. But does Russia benefit from this? And whom to blame? Revenging Russian bureaucracy or the ill-minded "West," which, according to the newest discovery of Russian nationalists, tries to destroy Russia by offering research opportunities to scientists who otherwise were supposed to change their occupation.

International cooperation is critical for the survival of science in FSU countries. Politically, it is important to preserve an intellectual elite who may be the only basis for future development and even renaissance. International recognition gives some moral support and raises the self-esteem of the best researchers in the currently suppressive, anti-intellectual political climate in most FSU countries. Scarce, but still existing, chances to escape as a "scientific refugee" or, at least, to get a temporary relief as a grantee or graduate student in a foreign laboratory is now almost the only motivation for the younger generation to join the scientific community. However, it is most important to keep pressure on the local governments,

which are responsible for the survival of national science. They are almost insensitive to domestic demands, but still may be influenced from outside. Tax exemption of foreign grants and information about domestic funding of the awarded (and, presumably, the best) laboratories must be demanded. Among international programs, long-term cooperation between laboratories is much more productive than any short-term grants.

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Black Hole Theories

Faye Flam's Research News article "Theorists make a bid to eliminate black holes" (23 Dec., p. 1945) describes some new theories by John Moffat, and by Huseyin Yilmaz and Carroll Alley. The article quotes physicists Charles Misner and Wil-

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