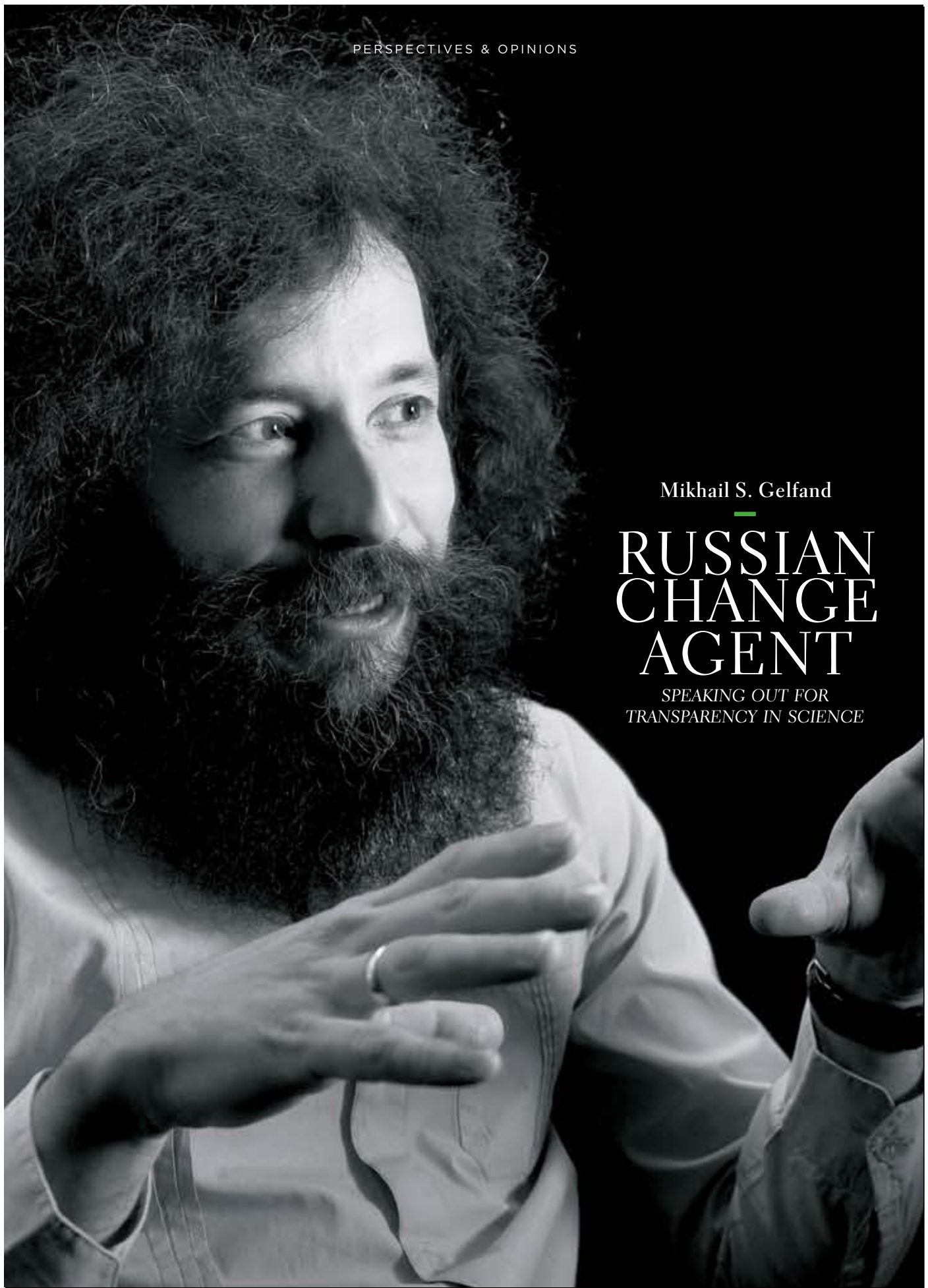


PERSPECTIVES & OPINIONS

Mikhail S. Gelfand

RUSSIAN
CHANGE
AGENT

SPEAKING OUT FOR
TRANSPARENCY IN SCIENCE



Paul Fetters

As a Russian scientist whose research in bioinformatics and comparative genomics has earned him several foreign-based grants, Mikhail S. Gelfand is in a unique position to advocate for modernization of the Russian Academy of Sciences, his country's main supporter of fundamental research. Notably, the HHMI international research scholar strongly favors the call by the Ministry of Education and Science for a much more transparent, merit-based, grant-focused system.

What is the quarrel between the ministry and the academy?

A year or two ago, the Russian government started pouring money into science and discovered that distribution mechanisms are extremely inefficient and nontransparent. For example, the same people who set strategic direction for the academy can then apply for those funds—a huge conflict of interest. If you have a pipe full of holes, you don't pour water into it. So the government started requesting more modern mechanisms.

The academy argues that this is part of the Russian government's effort to increase its control over society.

Of course, that possibility makes me uncomfortable. Still, the conflict is not between bureaucracy and society, but between two bureaucracies. The ministry, at least on the outside, looks progressive. The academy's leaders are dead set against change. They insist that everything at the academy is okay, that it just needs more money. Not true. Less than 8 percent of the budget for fundamental science is distributed through competitive grants. The ministry wants a much higher rate plus a shift in day-to-day management and decisions—on how money is spent and property is managed—to hired administrators. The ministry would leave strategic scientific planning to the academy.

What do you think needs to happen?

Reasonable intermediate steps would be salary increases based on merit, which to some extent has begun. Second, we need a much larger fraction of science spending channeled toward competitive grants for group projects, personal research, and purchasing large pieces of equipment. As it stands now, all decisions about buying equipment are made by people with political clout. There are outrageous examples of equipment never used properly, or at all.

We need something closer to the grant system that exists in Europe or the United States. Review could rely on the Russian diaspora for external expertise. Many of my collaborators are

Russians in the U.S. and Europe, and they are willing to review applications. They feel a moral obligation.

Now that the government is putting more money into science, are international grants less important?

They are still very important. But they have become less about money per se and more about providing people with some independence from local politics and showing an example of how the system should function.

In April, the academy voted to reject the ministry's suggested changes to academy operations. Now what?

I expected as much, although I'd hoped that some people within the academy would resist the herd mentality instilled by its leadership. The bad news is that the scientific community is bitterly opposed to all ministry moves, however reasonable (though not all are), and this community resolve has been strengthened by the symbolic unanimous vote. Also, there are signs that the ministry's resolve is failing.

Still, the episode could help force the academy toward a more reasonable position, as happens whenever there is a clash. But by consistently opposing any reform, the academy puts itself in a situation where even reasonable objections and opinions are not heard.

How do you stay optimistic that change will happen?

The choice is not between change and no change. Either change will occur or Russian science will disappear. This is something the academy leadership fails to comprehend.

You come from a family of accomplished mathematicians and scientists. Does that make it easier to be outspoken about these issues?

They all emigrated to America! Sometimes I feel like the one left behind to watch the shop. Having some degree of independence helps. I don't know how I would behave if my group was completely dependent on Russian money.

INTERVIEW BY CORI VANCHIERI. *Mikhail Gelfand is a mathematician and biologist at Moscow's A.A. Kharkevich Institute for Information Transmission Problems. Find more of his opinions on www.scientific.ru.*