

Open letter of Academician Zh. Alferov to the President of the Russian Federation Vladimir V. Putin

Dear Vladimir Vladimirovich,

I assume that President of any country is to be always the greatest patriot of his country and to hold an interest in the successful development of the state just by virtue of office. The revival of high-tech industries is the major challenge for the country. You have formulated it as a task for business: to create 25 million jobs in high technology sectors by 2020.

This is the task not only for business but for the country, science and education. In order to meet the challenge, it is necessary to return the focus to scientific research, to increase dramatically the role of the Academy of Sciences, to address constantly the demand of the economy and society for results, to develop the system of higher professional education, primarily science and technology education from a new angle.

Under the conditions of severe international competition for markets, including Russian ones, we can win only by creating fundamentally new technologies based on national scientific developments, and the RAS laboratories are, undoubtedly, the most effective for carrying out research. Our Academy has always been the country's supreme research institution, determining its scientific and technological progress, training of top-qualification personnel and coordination of research works in the field of Natural and Social Sciences.

At the time of 2000 Nobel Prize Award ceremony, BBC TV carried out a roundtable with new laureates, and I remember my neighbour at this table was Professor James Heckman, an American economist, who, answering a question, said the following: "In the second part of the twentieth century, the scientific technological progress was determined by competition of the Soviet Union and the United States. And from this point of view, it's a great pity that this competition is now over."

The Academy of Sciences has not only offered large-scale projects to the country, but also made landmark contribution to the projects implementation (the creation of a nuclear shield; nuclear energy and nuclear fleet; the development

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of outer space and the Northern sea route; Siberia and the Far East with the establishment of new scientific centres in these territories; radio determination and semiconductor “revolution”, etc.).

The leading industrial ministries (Ministry of Medium Machine-Building, Ministry of General Machine-Building, Ministry of Electronic Industry, Ministry of Radio Industry, etc.) were established with the active participation of the Academy of Sciences and the Academy’s leading scientists. Under favourable circumstances, had the reforms been carried out in a different way and by different people, they could have become successful multinational companies, competitive on the world market in the development of modern technologies and production. However, that did not happen.

After the toughest reforms in the 1990s, the RAS, having lost a lot, managed to keep its scientific potential much better than specialized science and higher educational institutions. The opposition of academic and institutional science is absolutely unnatural and can only be set by the individuals, pursuing their own and very odd political goals, which have little to do with the country’s interests.

The Law on reorganization of the RAS and other state academies of sciences, hastily proposed by Dmitry Medvedev and Dmitry Livanov, and your support for which is now obvious, by no means solves the task of increasing the efficiency of scientific research. I dare say that any reorganization, even much more reasonable than the one stipulated by the aforementioned Law, will not resolve the matter. The main problem of Russian science is the lack of demand for our scientific results in the economy and society.

Back in 2001, my fellow academicians approached me with the proposal to put my candidacy for RAS President. I refused, believing that solid prospects are ahead of us: new President of our country immediately met with the RAS leading scientists. It seemed that the economic course of the country’s development will positively change.

For the past 12 years much has changed, yet much is still the same. The statements that the Academy should be an elite club as in “civilized” countries, and science should be developed in universities, that the RAS is the heir of the totalitarian Soviet regime (the Academy of Sciences was severely attacked in the 1920s as well, only under the slogan “the Academy is the heir of the totalitarian tsarist regime”) still continued and multiplied. The fact that we are the heirs of the reforms of Peter the Great, the founder of the Academy of Sciences, was completely ignored.

As to the so-called “Club of eminent scholars”, let me remind you: the RAS maintains in operative management a huge federal property that you, fortunately, did not manage to privatize. And what will become of it, if the Academy is transformed into a club? We proceed from the interests of Russia and Russian science, intended to serve the country. But the question is who will profit from changing the Academy’s status? Maybe, those, who are looking to pilfer the property? Wouldn’t the federal agency, proposed by the draft Law, become the Academservis, as in case with the notorious Oboronservis?

Dmitry Medvedev's arguments that RAS organization corresponds to 1930–1940s and does not correspond to the 21st century are farfetched and meaningless.

In the organizational and structural context, the Academy of Sciences is a conservative institution in the best sense of the term. Both the US National Academy of Sciences, which celebrated its 150th anniversary this year, and the Royal Society of London that passed the milestone of 350 years, have little changed the principles of organization and structure during their history, nevertheless, they have played and continue playing a crucial role in the development of science and technology of their countries even at present. The same can be said about our RAS.

Over the last two decades our Academy has mainly adhered to “the survival philosophy”. In order to switch to the “development philosophy”, not only a considerable increase in financing, but, above all, highly-skilled and competent setting of new tasks in science and technology, are needed. At present only the RAS has really highly-qualified personnel in all areas of modern science, and we often witness the situation, in which the officials of the research agencies only create artificial fund distribution channels, and do not set real research goals, or a task to solve, the resolution of which requires the allocation of certain funds.

The aim, you did state, will be achieved only by effectively developing the Academy of Sciences, changing the status of its branches, creating new instead of inefficient ones, and not by “reforming” the Academy. Recently I set forth the RAS development programme during the RAS president elections. We need specific tasks, the solution of which by the most promising directions will enable the country to take up leading positions in modern science and technology. Such tasks can be set by the RAS scientists but not by Mr. Fursenko and Mr. Livanov with all their administration, since they have never done anything noteworthy for science. Should you now liquidate the Ministry of Education and the Department of Science and Education, headed by Aleksandr Khlunov, in your government, all teachers, professors and researchers would sigh with relief, and the country would not simply take notice of that.

The Presidential Council on Science, Technology and Education should comprise distinguished scientists and heads of the country's main high-tech companies, preparing for you new decisions on fundamental issues concerning the development of science, technologies and education. What we have instead is the Commission on the State prize, the Presidium of which is headed not by you (the person who makes and in fact, takes all decisions), but an official of the presidential administration. By the way, I can not imagine that the RAS Presidium would be led not by the President of the Academy, but by an employee of the Presidium apparatus. And, of course, no place could be found for the only Russian Nobel prize laureate in science in the Presidential Council.

And this is the Council you are going to entrust with the task of appointing the Directors of the RAS institutes!

Absolutely far-fetched is the integration of the Russian Academy of Sciences (RAS), the Academy of Medical Science, and the Academy of Agricultural Science, the unification of which will only destroy the normal functioning of all three of them. Moreover, the organization of cooperation and joint research does not require such reorganization. By the way, the USA, which is at present the most advanced country in science and modern technologies, has three national Academies (I have been the foreign member of two of the Academies already for a quarter of a century). One of the Academies, the Institute of Health, i.e. the US National Academy of Medical Sciences, has been rapidly developing nowadays, having huge budget and, in fact, even a number of universities and institutes at its disposal.

In general, the word “reform” has become a common noun, and is often perceived as a synonym of “collapse” and “defeat”. “Reforms” are immediately associated with Chubais privatization and the USSR breakup. Also, we managed to preserve our Academy of Sciences due to the fact that all organizations of the USSR Academy of Sciences were located on the territory of the RSFSR, and during the Soviet collapse the Academy of Sciences was naturally maintained as the Russian Academy of Sciences.

Instead of the law currently submitted to the State Duma, the status of the Russian Academy of Sciences as the top scientific institution is to be spelled out in the Federal Law and inscribed in the Academy’s Charter.

Our most important challenge is to make science in-demand. It is impossible to take the science out of the current disastrous situation without meeting this challenge. The funds for the implementation of scientific developments are always found, when science is in demand. Such conditions are to be created in our country now. The Russian Academy of Sciences is to become the real tool for solving the task. We can do this, and the authorities are obliged to help us.

When I was ten, I read a wonderful book “Two captains” by Veniamin Kaverin. And for all my life I have been following the principle of the novel’s main character Sanya Grigoryev: “To strive, to seek, to find and not to yield.” When doing so, it is important to understand what you are fighting for.

The struggle for the preservation of the RAS is not only a struggle for the future of Russian science; it is a struggle for the future of the country. And we really wanted to fight for this together with you!

*Zhores Alferov, RAS Academician,
winner of 2000 Nobel Prize in Physics*

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