

# Letter from the Editor

Last months of the past year were marked by the growing interest of various government officials and parliamentarians, as well as the media, to the problems of the development of the biological information market and biotechnology. Even a simple review of dates and facts shows that our country's leaders decided to take a serious approach to the revival of Russia's technological potential in this area. Presidential Advisory Board for the Questions of Modernization and Technological Development held its meeting in Pokrov, where President D.A. Medvedev inspected the technological grounds for new medical compounds production. Prime Minister V.V. Putin visited the pharmaceutical company in Zelenograd, where medicines based on the recombinant proteins technology are produced. On October 15, 2009, debates in the State Duma of the Russian Federation were held, the topic of which was "a perfectibility of the legislative support for the biotechnological industries." Industrial Committee in the State Duma has initiated that meeting. Another session with the participation of the Ministry of Science and Education and the Ministry of Industry and Trade of the Russian Federation was held to discuss the science and technology issues, and finally, a Presidential message to the Federal Assembly of Russia contained a significant section on biopharmaceuticals.

It is a common knowledge that before Perestroika the Soviet Union held one of the leading positions in the world in the field of biotechnological industries. A lot was achieved due to fast development of both academic and practical "bioscience," which managed to bounce back rapidly during "post-Lysenko" development. Unfortunately, that period of positive growth in biology, like in many other areas of scientific and technological progress, was abruptly stopped by the revolutionary developments of the early 90s. Nowadays a lot of questions are being sharply posed about the revival of 'life sciences' in combination with new biotechnologies and the biopharmaceutical industry.

The concerns are connected both with the national security and the participation of our country in the international division of labor in the XXI century. Discussions are mainly focused

on accelerating the development of biological sciences and biotechnologies, as well as on methods of increasing research effectiveness to cope with international standards (publications in leading scientific journals, high citation index, intensive patenting). The resources for the development of the biotechnology – be it governmental corporations' or private companies' funds – are still undefined. Perhaps it is possible to use both sources in reasonable proportions, but the mechanisms and details of the investing process are vague, and its possible pace is unclear. Another great concern is the expertise of the projects. After political barriers have been taken down, Russian scientists had no formal restrictions to migration to the West, and the turmoil of the 90s led to mass emigration of scientists from Russia, thus hurting the biotechnological sphere severely. We have to wonder now if we could aim towards "re-immigration," in the way China had focused its efforts on the return of its former citizens to raise their industry?

Along with the global challenges facing our leaders, scientists and businessmen, there are some other problems that need immediate attention. Many of them are tied to the customs control of international transportation of biological compounds, including those that are necessary for the media cultivation for cell lines and animals. Nowadays the process of their delivery to the Russian Federation is rather complicated, and in certain cases (for example, chemicals kept at low temperatures), is practically impossible. Also, we have to note that laboratory instruments, materials, and technological equipment imported into the Russian Federation are substantially more expensive for the local consumers than for their colleagues in European countries or the U.S.. This all makes the growth of a biological industry in Russia significantly more difficult than in the West.

All the above said led the editorial board of this journal to dedicate its Forum section to the problems of Bio-farm. We selected several articles from authors in the science world, in business, as well as from the media: we sought to show the opinion spectra of various experts on the problems connected to the development of the biological industry in Russia.