## **Preface to the Special Issue**

Special Issue of the «Journal of the Siberian Federal University. Biology» is devoted to the currently important and principal areas of biotechnology, biomedicine, and bioecology with an emphasis on the characteristics and role of new biomaterials and composites of «green» chemistry, which are of major interest and contribute to the development of the sustainable economy. As the population of the planet is growing, the production and consumption of chemicals, primarily synthetic plastics and xenobiotics, is increasing on an ever-larger scale. The pollution of the planet destroys the self-regulation mechanisms of the biosphere, leading to unpredictable consequences. To maintain the stability of the biosphere, it is necessary to switch to new forms of management, including new materials, drugs, and technologies for their use. Biotechnology has enormous potential, capable of satisfying all human needs without negatively affecting the environment.

The articles included in this special issue are based on the presentations of the participants the IV International Scientific Conference «Biotechnology of New Materials – Environment – Quality of Life» and the School for Young Scientists, which were held at the School of Fundamental Biology and Biotechnology of the Siberian Federal University (Krasnovarsk) in October 2021.

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