

**List of winners of the 9-th competition for grants in the form of subsidies from the federal budget for the state support of scientific research under the supervision of leading scientists in Russian institutions of higher education, scientific organizations and state research centers of the Russian Federation**

<b>No</b>	<b>Application number</b>	<b>Organisation</b>	<b>Topic</b>	<b>Field of studies</b>
1	220-5605-2894	Federal State Budget Educational Institution of Higher Education M.V.Lomonosov Moscow State University	Recyclable Self-Organizing Fluorinated Polymers For Optimized Proton Conduction Across Membranes	Materials technology
2	220-8908-9005	Federal State Autonomous Educational Institution "Southern Federal University"	Hybrid neuroelectronics for robotic complexes and artificial intelligence systems based on biocompatible memristive nanomaterials	Materials technology
3	220-7108-1760	National University of Science and Technology "MISiS" "	New radiation phenomena in gallium oxide: fundamental understanding and device exploitations	Materials technology
4	220-7427-9254	Federal State Autonomous Educational Institution of Higher Education "South Ural State University (national research university)"	Light states engineering for quantum computing and sensorics	Physics and astronomy
5	220-4334-3608	Federal State Budgetary Educational Institution of Higher Education "Saint-Petersburg State University"	Establishment of the Laboratory Photonics of Crystals	Physics and astronomy
6	220-6188-1900	Tomsk State University	Development of the fundamentals of physics and technology of radiation-resistant semiconductor structures and the creation of multi-element detectors based on them to provide research and research infrastructure of the synchrotron center of the 4th generation "SKIF" and other "mega-science" projects in the Russian Federation	Physics and astronomy
7	220-2583-7444	Federal State Budgetary Educational Institution of Higher Education "MIREA – Russian Technological University"	Multiferroics and 2D materials for neuromorphic data processing	Electrical engineering and electronics
8	220-9587-7257	ITMO University	Waves in medical systems	Electrical engineering and electronics
9	220-1030-3252	Moscow Institute of Physics and Technology	Tunable optical 2D nanostructures	Electrical engineering and electronics
10	220-2751-2610	Federal State Budget-Financed Educational Institution of Higher Education The Bonch-Bruevich Saint Petersburg State University of Telecommunications	Ultra-low-latency, ultra-high-density network technology investigation based on the extensive use of artificial intelligence for 6G networks	Computer, information sciences and technologies

11	220-8452-3649	Federal State Autonomous Institution of Higher Education Siberian Federal University	Hybrid methods of modelling and optimization in complex systems	Computer, information sciences and technologies
12	220-7868-7477	Federal State Budgetary Educational Institution of Higher Education "A.I. Yevdokimov Moscow State University of Medicine and Dentistry" of the Ministry of Healthcare of the Russian Federation	Development of an import-substituting technology for the production of a bioresorbable fixation system from magnesium alloys for osteosynthesis and reconstructive treatment in medicine and veterinary medicine	Medical sciences and health studies
13	220-1585-3551	Federal State Budgetary Educational Institution of Higher Education "Saint-Petersburg State University" "	Creation of the Laboratory of Microangiopathic Mechanisms of Atherogenesis	Medical sciences and health studies
14	220-5163-9919	V.I.Ilichev Pacific Oceanological Institute, Far Eastern Branch, Russian Academy of Sciences	Nonlinear gyrophysics with applications to natural disasters of the Far-East region	Earth sciences
15	220-5234-7520	Federal State Autonomous Educational Institution of Higher Education "Southern Federal University"	Bio-restoration of polluted soil ecosystems	Earth sciences
16	220-8921-2787	Federal State Budgetary Institution "The Russian State center for animal feed and drug standardization and quality"	Creation of agent for the prevention of socially significant infections in productive animals based on modern methods of nutrigenomics	Agricultural sciences
17	220-2961-3099	Federal State Budgetary Institution of Science Siberian Federal Scientific Center of Agrobiotechnology of the Russian Academy of Sciences	Creation of a scientific basis for monitoring the safety of food raw materials in a rapidly developing agricultural market	Agricultural sciences
18	220-8219-8385	Federal State Budgetary Institution of Science «Kazan Scientific Center of Russian Academy of Sciences»	Molecular design of redox-active heterocyclic systems - novel antitumor agents	Chemistry and chemical technology
19	220-2526-1368	Federal State Autonomous Educational Institution of Higher Education «Ural Federal University named after the first President of Russia B.N.Yeltsin»	Green methods and biotransformational technologies for the creation of advanced materials for theranostics of socially significant diseases, including SARS-CoV-2 and other viral infections, and novel (bio)pharmaceutical products	Chemistry and chemical technology
20	220-4358-4100	Institute of Problems of Chemical Physics RAS	Metal hydride technologies: from materials to hydrogen systems for energy storage and conversion	Power engineering
21	220-7540-7153	Federal State Budgetary Educational Institution of Higher Education "Platov South- Russian State Polytechnic University (NPI)"	Carbon-neutral technologies for recycling large-scale fuel wastes to produce functional geopolymers materials	Power engineering
22	220-6544-5338	Federal State Budgetary Institution of Science A.N. Severtsov Institute of Ecology and Evolution of the Russian Academy of Sciences	Evolutionary trends of the digestive system functioning in ectothermic vertebrates as a mechanism for surviving under contrasting environmental conditions	Biology

23	220-1930-9142	North-Caucasus Federal University	Study of the mechanisms of lactic acid microorganisms, lactose-fermenting yeast and biologically active substances interaction during microencapsulation of various fractions of microbiota	Biotechnology
24	220-4556-3730	V.I. Vernadsky Crimean Federal University	The Ethnocultural Transformations in the Eastern Roman Empire's Possessions in the Crimea	History and archaeology
25	220-9428-9898	Federal State Autonomous Educational Institution of Higher Education "Sevastopol State University"	The scientific direction of the project lies in a comprehensive understanding of the history of the Black Sea region, partly located on the territory of the Russian Federation, and the Greater Mediterranean region, located in close proximity to its borders. The formation of an ethnic, political and religious picture in these regions in the Middle Ages, as well as the building of economic ties within them for more than a thousand years (4th-16th centuries) are directly related to the specifics of the national, political, economic and religious context of the life of these vast territories at present. These aspects find their expression in the form of specific social institutions that have ethnic (proto-national), political and economic dimensions. The identification and designation of individual social communities that are specific carriers of these dimensions is the most general task within the framework of the chosen direction. A further general task is to work on establishing and describing the systems of links between these communities along political, economic and religious lines. The societies of the Roman (Byzantine) Empire and numerous successor states, including the Italian maritime republics (primarily Genoa and Venice), the Mongol Empire, the Ottoman Sultanate and the Russian state are considered as basic social communities. Thus, the problems of the processes of the "first" and "second globalization" are in the field of view of researchers. The first refers to the globalization of the era of the Roman Empire (1st-6th centuries), marked by the formation of four interconnected civilizational blocks on the Eurasian continent (the Roman Empire, the Persian state, the Indian states, China). The second refers to building a system of international relations on a global scale during the transition from the Middle Ages to the New Age: this process is based on the process of mastering the Byzantine heritage by the states of Western Europe, the Ottoman Empire and Russia, as well as the beginning of building global political and economic relations carried out by the states of Western Europe, the Ottoman Empire and Russia in the 16th-17th centuries. On the other hand, the scientific team will focus on the period of regionalization that followed the collapse of the Roman Empire and the collapse of the Persian state (5th-7th centuries) during the subsequent expansion and fragmentation of the Islamic world in the 7th-13th centuries.	History and archaeology

			The study of these processes, marked by alternate intensification and defragmentation of intracontinental and transcontinental relations, is directly related to understanding the processes of "globalization" and "regionalization" in the modern world, taking into account the political, economic and religious interests of social communities represented by states and other political entities	
26	220-2219-2320	Federal State Autonomous Educational Institution of Higher Education "Peoples' Friendship University of Russia"	The proposed research is aimed at studying the qualitative properties of nonlinear and nonlocal equations including the nonlinear Hamiltonian partial differential equations with added dissipation and random driving force, kinetic equations, the Boltzmann equations, the mixed problem for the Vlasov-Poisson system of equations with an external magnetic field, semilinear elliptic and parabolic equations with the applications to biology and medicine, the boundary value problems for differential-difference equations, differential equations with integral conditions, and nonlocal parabolic equations. The practical part of the research is mathematical modeling of dynamic processes in plasma confinement devices	Mathematics
27	220-5156-2191	Federal State Budgetary Educational Institution of Higher Education "Saint-Petersburg State University"	Dynamics and extreme performance of advanced nanostructured materials	Mechanics and engineering
28	220-6222-4152	Federal State Budget Educational Institution of Higher Education "Pushkin State Russian Language Institute" "	The role of affective touch in the developing brain: fundamental and translational research	Psychology and pedagogy
29	220-1688-3710	Peter the Great St.Petersburg Polytechnic University	Technological challenges and socio-economic transformation in the context of green transitions	Economics
30	220-4120-8031	Federal State Autonomous Educational Institution of Higher Education «South Ural State University (national research university)»	Innovations for air and water purification, carbon footprint reduction: nanomaterials and nanocomposites, photocatalytic and electrochemical approaches	Ecology and the rational use of natural resources