



# Horizon 2020 'Health, demographic change and wellbeing'

Russian National Contact Point "Health"

Horizon 2020

## INFO LETTER

May 2015

### News

12.05.2015



The Ministry of Education and Science of the Russian Federation has announced topics and calls for Horizon 2020 which are of high priority for the Russian Federation.

Russian researchers and organisations are encouraged to join all actions of Horizon 2020 as consortium members and submit their proposals directly to the European Commission.

Taking into account that participants from Russia are no longer automatically funded by the EU, the Ministry of Education and Science of the Russian Federation supports participation of Russian scientists and organisations in Horizon 2020 initiatives by publishing dedicated calls. These calls offer funding support for Russian Horizon 2020 participants in accordance with the Ministry's own call procedures (Russian Federal Programme (FTP) "R&D in Priority Fields of the S&T Complex of Russia" for 2014-2020"). According to the application procedure Russian applicant is required to provide a document acknowledging their participation in the consortium of the joint Horizon 2020 proposal, submitted under the Horizon 2020 call.

For more information please follow the following link:

<http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross...>

## Open Calls



### Research projects competition with participation of French scientific organisations

Ministry of Education and Science of the Russian Federation, Ministry of Foreign Affairs and International Development of France and Ministry of National Education, Higher Education and Scientific Research of France announce competition between research projects in priority areas with participation of French research organisations and universities.

This competition invites research projects that are conducted in the following priority area: "Medicine - infectious and neurodegenerative diseases, non-infectious chronic diseases".

Maximum subsidy per agreement should not exceed 15 million rubles.

**Call deadline: 15 June 2015**

Projects should be implemented in collaboration with a foreign partner. Co-funding share of the project should be no less than 50% of the total project funding.

A separate proposal from a foreign partner should be submitted to the Ministry of National Education, Higher Education and Scientific Research of France. Information on call announcement for French partners can be found on the following web site:

<http://www.campusfrance.org/presentation-generale>.



### Joint Russian-French initiative research projects competition of the Russian Foundation for Basic research (RFBR) and Centre National de la Recherche Scientifique (CNRS)

The aim of the competition is to grant financial support for initiative research projects being conducted by Russian and French scientists.

The Competition supports basic research projects being conducted by joint Russian and French scientific teams in the area of Biology and Medical Sciences. The Competition supports research being conducted by Russian and French scientists in the research areas of mutual interest.

Russian and French scientists, supervisors of the joint project, must agree in advance on the name and content of their applications and submit the applications to RFBR (Russian) and CNRS (French). The duration of the joint initiative research project is 1, 2 or 3 years.

**Call deadline - 01.03.2017**

[http://www.rfbr.ru/rffi/eng/contests\\_international\\_announcement/o\\_1782797](http://www.rfbr.ru/rffi/eng/contests_international_announcement/o_1782797)



### Joint competitions of the Russian Foundation for Basic research (RFBR) and Austrian Science Fund (FWF)

The objective of this competition is to welcome projects on basic scientific research and to grant financial support for prospective research projects that are conducted by individuals from Russia and Austria in the field of "Biology and medical sciences".

Project duration - 3 years.

Russian participants and Austrian parties should agree on the content and the name of the studies, and submit their projects **by February 1, 2017**.

[http://www.rfbr.ru/rffi/eng/contests\\_international\\_announcement/o\\_1896348m](http://www.rfbr.ru/rffi/eng/contests_international_announcement/o_1896348m)



### Joint initiative research projects competition of the Russian Foundation for Basic research (RFBR) and the German Research Foundation (DFG)

Competition objectives: Financial support for both Russian and German researchers in their joint initiative scientific activities.

The Competition supports basic research projects being conducted by joint Russian and German scientific teams in the area of Biology and Medical Sciences.

Russian and German scientists, supervisors of the joint project, must agree in advance on the name and content of their applications and submit the applications to RFBR (Russian) and DFG (German Research Foundation).

Russian scientists submit the application after the registration of German team's project in DFG. The number of German application must be sent to RFBR.

The duration of the joint initiative research project is 1, 2 or 3 years.

The name of the project must be the same for both Russian and German application.

Applicants are welcome to submit their applications till **1 December 2015**.

[http://www.rfbr.ru/rffi/eng/contests\\_international\\_announcement/o\\_1896349](http://www.rfbr.ru/rffi/eng/contests_international_announcement/o_1896349)



[RFBR and the Royal Society in partnership with the British Council announce competition of projects in organisation of Russian-British seminars for young scientists](#)

Russian Foundation for Basic Research (RFBR) and the Royal Society in partnership with the British Council announce Competition of projects on organisation of Russian-British seminars for young scientists in 2015 - 2016.

The objective of this Competition is to stimulate cooperation of young scientists from the Russian Federation and the United Kingdom in the form of scientific seminars conducted by leading scientists from Russia and the United Kingdom. It aims to create conditions for long-term cooperation of young scientists in the field of basic scientific research.

The Competition welcomes submission of projects on organization of scientific seminars for young scientists from Russia and the UK that last from 3 to 5 days in the Russian Federation and are scheduled between November 1, 2015 and March 31, 2016 . The daily duration of a seminar should be no less than 6 hours. Number of participants should not exceed 40 participants and should be no less than 26 people. The number of young scientists from Russia that participate in a seminar should be equal to the number of young scientists from the UK.

The project requires organisation of a seminar on "Biology and medical science" topic.

The project can be interdisciplinary.

Applications for participation in this Competition are accepted from 30 April 2015 until **20 July 2015**.



[Russian Foundation for Basic Research \(RFBR\) and the National Centre for Scientific Research of France \(CNRS\) announce competition of proactive scientific projects](#)

Russian Foundation for Basic Research (RFBR) and the National Centre for Scientific Research of France (CNRS) announce competition of proactive scientific projects for 2016.

The objective of this Competition is to facilitate development of international cooperation in basic scientific research, provide financial support for the prospective research projects that are conducted jointly by scientists from Russia and France.

The Competition will present projects in basic research that are carried out by groups of individuals from Russia and France in the area of Biology and Medical Sciences.

Applications will be accepted **until June 2, 2015**.

Project duration: 1, 2 or 3 years.

## Events

Expocentre Fairgrounds	25th International Exhibition	
 <p>Health Care, Medical Engineering and Pharmaceuticals</p> <p>12+</p>		<p>Z D R A V O O K H R A N E N I Y E 0 7 - 1 1 . 1 2 2 0 1 5</p>

### Russian Health care Week

Date: 7-11 December 2015

Location: Moscow, Russia

Web-site: <http://www.zdravo-expo.ru/en/>



1<sup>st</sup> Russian Society of Urology  
and European Association of Urology  
joint Congress

September 18 - 20, 2015, Saint-Petersburg, Russia

### 1<sup>st</sup> Russian Society of Urology and European Association of Urology Joint Congress

Date: 18-20 September 2015

Location: St. Petersburg, Russia

Web-site: <http://www.congress-rou.ru/en/>



**III International Congress**  
**“Hypertension — from Korotkov to our days”**  
**May 21-23, 2015 • Saint Petersburg • Russia**

### 3<sup>rd</sup> International Congress “Hypertension – from Korotkov to our days”

Date: 21-23 May 2015

Location: St. Petersburg, Russia

Web-site: <http://www.almazovcentre.ru/?p=14889&lang=en>

## Research Cooperation



**Institute of Cytology and Genetics of the Siberian Branch of the Russian Academy of Sciences (ICG SB RAS), Novosibirsk, Russia**

**Homepage: <http://www.bionet.nsc.ru/en>**

The Institute of Cytology and Genetics, Siberian Branch of the Russian Academy of Sciences (ICG SB RAS) is one of the earliest research institutions of the Siberian Branch, as well as one of the largest and multidisciplinary biological institutes in Russia. It also ranks among the largest biological institutes in the world. The institute was established in 1957 by Prof. N.P. Dubinin as the first genetic institute founded in the USSR Academy of Sciences. The institute was developed as a multidisciplinary research institution for solving fundamental and applied tasks in genetics, cytology, molecular biology and breeding. Since 2007, under the directorship of Professor N.A. Kolchanov, the key position in studies conducted at the institute has been occupied by the integrated approach to the investigation of the genetic base of organization and operation of living systems, which rests on interdisciplinary research and integration of experimental and computational methods. The institute maintains leadership in many promising fields of genetics, breeding, cell and molecular biology, evolutionary and physiological genetics, systems biology, biotechnology, and biomedicine.

Key research fields at ICG include:

- The structural and functional organization of genetic material at the levels of the genome, chromosome and gene. Reconstruction of the genome, transgenesis in plants and animals;
- The molecular-genetic and genetic-evolutionary bases of the functioning of physiological systems providing vital processes. Chromosome and gene diagnostics of inherited and multifactorial diseases;
- The genetic-evolutionary aspects of population biology and biodiversity. Development of new methods of animal and plant genetics and breeding for efficient use of gene pools.

Along with basic studies, the ICG focuses its efforts on applied research. Altogether there are already 48 registered developments protected by patents and certificates that had immediate practical implications. The developments included producer strains, plant varieties and their hybrids, animal strains and lines, medicinal preparations, means for plant protection and biotechnology. Additionally, the ICG regularly hosts various **interlaboratory seminars** on molecular, animal and physiological genetics as well as plant genetics in order to ensure expert evaluation of reports and research papers prepared for publication and dissertations. The Institute ensures participation of each laboratory in particular seminars. It also holds annual report sessions of the Scientific Council which regularly evaluates performance of all divisions and laboratories.

ICG continuously participates in international projects and collaborates with numerous foreign partners. This collaboration has been supported by grants from INTAS, NATO and Britain's Wellcome Trust. ICG has concluded numerous working agreements with laboratories, universities, and institutes from many countries. Annually, the Institute hosts international conferences and regularly provides platforms for presentations held by biochemical and biotechnological companies.

**PBSoft LLC (PBSOFT), Novosibirsk, Russia**

**Homepage:** <http://www.pbiosoft.ru/en/about-us>

PBSoft is a research-based innovative IT company organized by the group of employees and PhD students from the Computer Proteomics Laboratory of the ICG SB RAS. It is a small innovation enterprise specialized in development of software for text-mining and knowledge bases in the field of systems biology. PBSoft focuses on development of:

- Computer software for automated extraction of knowledge from the texts of scientific publication and databases (text-mining, database-mining);
- High quality knowledge bases for the biomedicine, biotechnology, nanobiotechnology and pharmacology;
- Computer tools for the automated reconstruction of semantic networks for molecular-genetic interactions, regulations and pathways in cell.

The PBSoft company is the winner in the "Perspective business" nomination in the First Siberian Venture Fairs, 2007, Russia. PBSoft jointly with ICG performed work on the following state contracts: (1) «Cell-Textmining: Development of the methods and software tools for extraction and integration of knowledge on molecular interactions in cell from factual and textual databases»; (2) «Development of databases in the field of nanobiotechnologies as informational infrastructure elements of the nanoindustry»; (3) «Development of the web-based system for experts, assigned for identification of interconnected proteins, revealed with post-genomics methods». PBSoft developed the software packages ANDCell and ANDVisio which allow to reconstruct the associative networks on the basis of semantic analysis of publications.

PBSoft has also developed the PDBSite database for the spatial structures of protein functional sites, containing data on about 100 000 sites from various proteins (sites of posttranslational modification, enzymatic activity, ligand binding, protein-protein and protein-RNA/DNA interactions). PDBSiteScan, a program for the recognition of sites in the spatial protein structures (<http://wwwmgs.bionet.nsc.ru/mgs/systems/fastprot/pdbitescan.html>), was developed and integrated with the PDBSite database. Both the PDBSite and the PDBSiteScan systems can be used to conduct studies concerning the protein functional annotation and molecular interaction reconstruction. The WebProAnalyst (<http://wwwmgs.bionet.nsc.ru/mgs/programs/panalyst/>) tool which allows to reveal the correlations between protein activity and amino acid physicochemical characteristics in queried sequences has also been developed. This method can be used for analysis of quantitative structure-activity relationships in proteins. The ProtStability tool for prediction of mutation effect on protein thermodynamic stability was developed. A computer system for automated data extraction from PubMed and biological databases was developed. This computational system (ANDCell) allows user to extract information on molecular genetic interaction, gene regulation events, catalytic process, genetic polymorphisms and their associations with diseases.

The company actively participates in international projects of various scales.



## **Bach Institute of Biochemistry (INBI), Moscow, Russia**

**Homepage:** <http://www.inbi.ras.ru/index-e.html>

The Bach Institute of Biochemistry, the first biochemical institution affiliated with the Academy of Sciences, was established according to the Decision of the General Meeting of the Academy in 1934. The founders of the Institute were the renowned scientists Academicians Aleksey N. Bach and Aleksandr I. Oparin. The Institute plays an important role in organizing and advancing biochemistry in Russia. Former scholars of the Institute were among those who were at the forefront of the establishment of the Institute of Molecular Biology (Moscow), Institute of Protein (Pushchino, Moscow oblast), Institute of Photosynthesis (Pushchino, Moscow oblast), Institute of Physicochemical Biology of the Moscow State University (Moscow), Institute of Plant Biochemistry (Tbilisi, Georgia), Institute of Molecular Biology and Biochemistry (Alma-Ata, Kazakhstan), Institute of Biochemistry and Physiology (Bishkek, Kyrgyzstan), and others.

The main objectives of the Institute are focused on researching biochemical foundations of vital processes and further application of the achieved results to production. Studies of structure and function, as well as regulation of syntheses and activities of enzymes, enzymatic systems, their complexes, and main metabolic processes; research of physiologically active compounds, pathways of their biosyntheses and mechanisms of action; study of the molecular basis of photobiological processes; and study of the biochemical basis of human ontogenesis and pathogenesises of main diseases are among the priority topics of the Institute's research. Scientists currently develop methods for detection of microquantities of biologically active substances and theoretical foundations of enzymatic biotechnologies, phyto- and ecobiotechnologies. The Institute also pays special attention to innovative activities. The latest developments of the Institute include a highly efficient microbiological technology for purification of ventilation discharges from toxic volatile compounds. The gas-cleaning systems designed using this technology are successfully exploited in Russia, the UK and South Korea. Immunosensor systems for ecological monitoring and medical diagnostics have also been developed. Additionally, the Institute designed and introduced into practice the diagnostic kits for the detection of drugs and early diagnostics of phenylketonuria.

The research performed at the Institute is supported by domestic and international grants and foundations, namely, programs of the Presidium of the Russian Academy of Sciences and grants of the Russian Foundation for Basic Research, Ministry of Education and Science of the Russian Federation, Government of Moscow, INTAS, INCO-Copernicus, CRDF, NATO, Wellcome Trust, ISTC, and others. The Institute collaborates with many foreign institutions through implementation of joint projects, including European Laboratory for Molecular Biology, German National Research Center for Environmental and Health Research, and Ruhr University of Bochum, and Technical University of Berlin (Germany); University of Stockholm and Lund University (Sweden); Institute of Biological Sciences of the University of Wales and the University of Kent (UK); Institute for Food and Nutrition Research, University of Bologna, and Center for Magnetic Resonance (Italy); Institute of Environmental Chemistry (Spain); Swiss Institute of Technology; University of Jerusalem (Israel); Agricultural University of Athens; and University of California in Davis and Carnegie Mellon University (USA).

At present, the Institute also actively focuses on training scientific personnel, including students, postgraduates, and researchers working towards their doctorate degrees. Throughout 70 years of the Institute's work, over 150 doctoral and 700 candidate dissertations have prepared their work and defended it at the Institute. Biotechnological developments of the Institute have found



wide application in the national economy, yielding considerable benefits and winning highest state and scientific awards to their authors such as the State Prizes of the USSR and the Russian Federation, the Prize of the Government of the Russian Federation, the Lomonosov Golden Medal, and other prizes and medals of the Russian Academy of Sciences, named after prominent scientists, as well as scientific prizes of foreign countries. Today, the staff of the Institute represents a good blend of experts and young prospective scientists, which form a team of highly-efficient and like-minded people with a significant intellectual potential. Combining research into most topical problems in biochemistry with innovative activities, the Institute creates a new incentive for further development.



**Institute of Biochemistry and Genetics of the UFA scientific centre, Russian Academy of Sciences (IBG), Bashkortostan, Russia**

**Homepage: [ibg.anrb.ru](http://ibg.anrb.ru)**

Originally, Federal State Institute of Biochemistry and Genetics of the Ufa Scientific Center, Russian Academy of Sciences, was established as the Department of Biochemistry and Cytochemistry of the Bashkir Branch of the Academy of Sciences of the USSR (BF USSR) in 1962. In 2011, the type and name of the Institute was changed to the Federal State Institute of Biochemistry and Genetics, of the Ufa Scientific Center, Russian Academy of Sciences.

The main objective of the Institute is to conduct fundamental and applied research in the field of physico-chemical biology and genetics. The main activities of the Institute focus on the molecular mechanisms of plant relationship with the environment and their regulation; creation and study of the properties of genetically modified organisms with unique economically valuable traits; microevolution processes; ethnogenomics and genogeography of hereditary multifactorial diseases and complex traits in human populations; biochemical and population mechanisms of adaptability in insects; mechanisms of interaction between the nervous and immune systems; research of the pharmacological activity of new substances of natural or synthetic origin; development of new technologies for studies of biopolymers, including at the nanoscale.

Currently, 9 research laboratories of the Institute employ 20 doctors and 57 candidates of sciences. Annually, the Institute trains more than 30 graduate students, while there is also a council for the defense of doctoral theses in three academic disciplines. Wide recognition was given to the research studies on organization and expression of genes of higher and lower organisms, in molecular and population genetics of human physiology, as well as in biochemistry of plants and insects, living systems technology and pharmacogenomics.

The Institute participates in various international projects and employs a team of highly skilled professionals. Approximately 50% of the budget of the Institute comes from grants received from the Presidium of Russian Academy of Sciences, RFBR, RHF, Rosnauka, European Union and other.

## **Pasteur Institute of Epidemiology and Microbiology, Saint Petersburg, Russia**

Homepage: <http://pasteurorg.ru/>

Pasteur Institute of Epidemiology and Microbiology was originally established in St. Petersburg as the Bacteriological and Diagnostic Institute in 1923. Today, the Institute maintains the leading position in Russia regarding the research on a number of issues of etiology, epidemiology and microbiology of topical infections.

The Institute comprises several laboratories and departments. For example, the Intestinal Infections Laboratory (Head – L.A. Kaftyreva) prioritizes research on enterobacteria (pathogens shigellosis, salmonellosis, campylobacteriosis and heliobacteriosis). Zoonanthroponosis Laboratory researches the issue of natural focal infections (Head - K.N. Tokarevich). Laboratory of Etiology and Prevention of Viral Infections studies influenza (supervisor – M.A. Bichurina). The Regional Center for the Prevention and Control of AIDS focuses on HIV infection and AIDS research (Head – T.T. Smolskaya). The Regional Center for Surveillance of Viral Hepatitis studies the issue of viral hepatitis (Head – S.L. Mukomolov). The Laboratory of Bacterial Respiratory Infections studies diphtheria (Head – G.Y. Tseneva). The Laboratory of Molecular Microbiology carries out in-depth studies of bacterial and viral agents using modern methods of molecular marking and genotyping of pathogens (Head – O. V. Narvskaya). The Institute also continues its active information-publishing activities: the Information Department (Head - Seagull NA) has translated and published materials of the World Health Organization regarding diphtheria, polio, AIDS, viral hepatitis, tuberculosis and other topical infections.

Additionally, the research continues in the field of vaccinology. The Laboratory of children viral infections has completed its laboratory work on creation of the national rubella vaccine based on the reconstituted vaccine strain "Orlov" (Head – I.N. Lavrenteva). The scientific results in the field of biotechnology were applied in numerous drugs used in particular diagnosis of infectious diseases. During the last 10 years, the scientists of the Institute have created more than 100 modern test systems for the diagnosis and monitoring of infectious diseases.

The institute has been actively working on clinical trials for prevention and treatment of infectious diseases. Most recently, the Institute has been developing new forms of interaction with the Sanitary Epidemiological Service. Additionally, the Testing Laboratory Centre with expertise on a wide range of goods and services was accredited on the premises of the Institute.

The Institute actively participates in scientific contacts and joint projects with scientists from France, Finland, the UK, Sweden, USA and other countries. In 1993, the Institute was accepted as the competent member of the international association of Pasteur Institutes across the globe. The Institute uses diversified international cooperation not only for the purposes of theoretical studies development, but also for dissemination of modern technologies for communicable diseases' control and surveillance, in other words – to aid the efforts of Sanitary inspection and to ensure national health.



**State Federal-Funded Educational Institution of Higher Professional Training I.M. Sechenov First Moscow State Medical University of the Ministry of Health of the Russian Federation, Moscow, Russia**

**Homepage:** [http://www.mma.ru/en/research\\_and\\_innovation/](http://www.mma.ru/en/research_and_innovation/)

At present, I.M. Sechenov First Moscow State Medical University (hereinafter referred to as “First MSMU”) is the biggest educational, scientific and medical complex in Russia which focuses on training, certification and continuing professional development of medical and pharmaceutical workers. MSMU staff, students and R&D achievements significantly contribute to both national and global medicine.

More than 2,500 academic staff members at 8 faculties with about 150 chairs train over 14,000 graduate students and 15,000 postgraduate specialists (full-time, part-time and evening attendance, distance learning) in 14 specialties. Approximately 30 doctoral and 100 PhD theses are defended on the annual basis. 85% of the University lecturers have academic degree. The University employs 4 actual members and 3 corresponding members of the Russian Academy of Sciences, 64 actual members and 38 corresponding members of the Russian Academy of Medical Sciences (RAMS), 3 actual members and 1 corresponding member of the Russian Academy of Education, about 70 honored science workers of the Russian Federation, more than 100 laureates of the State Prize, the Russian President & the Government Prize.

The campus of the University hosts 69 buildings for studies, 19 teaching hospitals with over 3,000 beds, 7 university research institutes and bases of 5 research centers of the RAMS, more than 30 laboratories, the biggest medical library in Europe, botanic garden and numerous facilities that serve as the finest environment for achieving academic excellence and delivering outstanding results in research and innovation on top of high quality medical treatment.

The First MSMU has always played an important role in the international medical science starting from its foundation. The University has a distinguished history of medical research and research expertise. Currently the MSMU focuses on research and education aimed at advancing knowledge in increasingly important areas of healthcare and strives to create opportunities for young enthusiastic researchers to rise and develop their ideas.

Research activities of the First MSMU are split into 37 basic directions which are defined by the innovative and socially significant priorities. More than 20 inventions are registered by the staff of the First MSMU on the annual basis. Every year our University holds several scientific conferences with international participation. More information regarding these conferences can be found at [www.eng.mma.ru](http://www.eng.mma.ru).

The University prioritizes the following areas for its research activities:

- Development of contemporary medical drugs and biological supplements;
- Development of cellular and molecular technologies;
- Development of new methods for treatment and diagnostics;
- Development of new medical technologies and equipment.

In order to deal more efficiently with the contemporary acute issues in healthcare, The University has established four new Research Institutes (RI):

- RI of Molecular Medicine (2000);
- RI of Pharmaceuticals (2001);
- RI of Public Health and Healthcare Management (2002);
- RI of Medical Sociology, Healthcare Economics and Medical Insurance (2011).

Additionally, in an attempt to close the forming gap between science and business, the I.M. Sechenov First MSMU Science Park was established as the first park in the Russian Federation that specializes on the field of medicine. The mission of the Park is to help young scientists and researchers develop their innovative ideas into ground-breaking business projects. From laboratory research to business consulting and economic planning we provide support to those who wish to realize their ideas.

Currently, the First MSMU has also broadened it's international activity and is in the process of active establishment of mutually beneficial partnerships with medical schools all over the world. Today, more than 140 specialists of the University are members of one or more foreign and international scientific and professional societies, organizations and associations. The University frequently provides opportunities for around 200 members of it's staff and students to travel abroad for various purposes. Annually, more than 100 people take part in more than 60 major international forums.



**Immanuel Kant Baltic Federal University (IKBFU), Kaliningrad, Russia**

**Homepage:** <http://eng.kantiana.ru/home/research>

Immanuel Kant Baltic Federal University (IKBFU) was established in 2010, however the history of this University dates back to the 1947 when the Kaliningrad State Pedagogical Institute was founded. The University was later transformed into Kaliningrad State University in 1966 and Immanuel Kant State University of Russia in 2005 prior to becoming IKBFU. At the moment, IKBFU is one of the innovative institutions of higher education in the Russian Federation, which tends to preserve and elaborate on academic traditions of its predecessor - "Albertina" Konigsberg University.

Currently, IKBFU is the largest institution of higher education in the Kaliningrad region and one of the 9 federal universities in the Russian Federation on top of being the scientific center of the Northwest and the scientific and education bridge between Europe and Russia. The University conducts research in 36 major research fields. Over the last 5 years, research funding has increased 6.5-fold. More than 140 research topics were developed in 2013 with a total funding of more 180 mln roubles. More than half of these topics focus on applied studies in natural and exact sciences.

Overall, 140 postdoctoral and 500 doctoral students, young scientists, graduate and undergraduate students contribute to the University's research activities. The University trains highly qualified staff, specifically doctoral and postdoctoral students. Over 600 students annually undertake their doctoral studies at IKBFU. The University offers 5 postdoctoral programmes. There are several doctoral and postdoctoral thesis panels in IKBFU. Numerous doctoral students and young teachers have received grants from Russian and international research foundations.

Research results are published in the leading national and international research journals. With respect to this, the University introduced the system of incentives for its employees for publishing articles in the Scopus and Web of Science-indexed journals at the beginning of 2013. By the end of 2013, the number of research articles published in the leading scientific periodicals increased (2.96 publications per author) in comparison with 2011 (2.75 publications per author) and 2012 (2.80 publications per author).

In 2008-2011, IKBFU scholars published 150 monographs, more than 400 course books and teaching materials, and more than 2,500 research articles. The University Press publishes scientific journals included in the list of Russia's High Attestation Commission - IKBFU's Vestnik (in all research fields), Kantovsky Sbornik, and The Baltic Region (published in collaboration with Saint Petersburg University in Russian and English).

Additionally, the following research institutions function at IKBFU:

- Science Park;
- Research Institute for Applied Informatics and Mathematical Geophysics;
- Baltic Studies Institute.

The Science Park was set up at the University in 2008 as a platform for efficient science-industry cooperation in the region. The Park hosts the Laboratory for 3D prototyping on its premises, and also focuses on research in:

1. materials science and biotechnology (research areas include nanobiotechnology, nanoelectronics, nanotechnology in energy saving).

Within this field of research, in collaboration with Russian and EU partners, IKBFU is implementing a project in the framework of governmental decree No.218 on the development of X-ray optics materials and devices. Major partners of this project include ESRF (European Synchrotron Radiation Facility, Grenoble, France), Bochvar Hi-Tech Institute of Inorganic Materials (Moscow, Russia), Lebedev Institute of Physics.

2. medicine and medical biotechnology (research areas include genomics, proteomics, molecular biomedicine; immunology; cell technology; bioinformatics and medical statistics; preclinical testing of drug candidates).

IKBFU also hosts a range of laboratories which are listed here: <http://eng.kantiana.ru/home/research/laboratories>.