

International (Regional) Cooperation and Exchange Programs

In order to improve the quality of China's scientific research and its international competitiveness, the International (Regional) Cooperation and Exchange Programs aim at funding Chinese scientists to conduct substantial cooperation with their international collaborators in focused frontier research areas and take full advantage of international scientific and technological resources on the basis of "equal cooperation, mutual benefits, and equal sharing of research results".

The funding system of the International (Regional) Cooperation and Exchange Programs is presently comprised of Key International (Regional) Joint Research Program (formerly known as Major International (Regional) Joint Research Program), International (Regional) Cooperation and Exchange Programs funded under the Agreements/MOUs between NSFC and its foreign partners, Research Fund for International Young Scientists, and International (Regional) Academic Conferences held in China.

Key International (Regional) Joint Research Program

The Key International (Regional) Joint Research Program, formerly known as Major International (Regional) Joint Research Program, gives priority to research in the following areas: joint research in the priority funding areas of NSFC, joint research in areas that China urgently needs to develop, international mega projects and programs with Chinese participation, and joint research projects utilizing large-scale scientific facilities abroad.

Researchers applying for this program shall, in accordance with the priority funding areas announced by relevant scientific departments, choose innovative joint research subjects centering on major scientific issues, and clarify the necessity and complementarities of the cooperation. The partners shall have long-term steady collaboration (e.g. coauthored publications and

continued personnel exchanges and communications) and the overseas partners shall have matching fund for this research. In the process of cooperation, attention shall be given to the protection of intellectual property rights.

In 2013, altogether 109 out of the total 487 applications under the Major International (Regional) Joint Research Program were funded with a total funding of 300 million yuan, with an average funding amount of 2.75 million yuan per project and a success rate of 22.38%.

In 2014, the Key International (Regional) Joint Research Program plans to fund 100 projects with an average funding amount of around 3 million yuan per project, and each project usually lasts for 5 years.

Eligibility of Applicants

In order to be eligible for this program, applicants should be:

- (1) Granted with the title of professor or associate professor; and
- (2) Principal investigators of on-going or completed NSFC research project with the duration of no less than 3 years.

Eligibility of Foreign Partners

In order to be eligible for this program, the foreign partners should be:

- (1) Independent researchers in charge of research laboratories or key research projects abroad; and
- (2) Granted with the title of professor or associate professor in the host countries/regions.

Appendix documents

Aside from the Chinese application form, the applicant should also submit the following documents as required:

- (1) English Application Form: The English Application Form can be downloaded in the Internet-based Science Information System (ISIS) of NSFC and should be uploaded online when filled in.
- (2) Letter of Agreement: A copy of the Letter of Agreement signed between the collaborating PIs should be provided. Unilaterally signed letters are not valid. The Letter of Agreement mainly covers:
 - (i) Research contents and objectives;
 - (ii) Collaborating PIs and participants;
 - (iii) Period, mechanism and plan of joint research;
 - (iv) Ownership, use and transfer of IP rights;
 - (v) Relevant budgetary arrangements.

- The applicant could refer to the sample Letter of Agreement which can be downloaded at <http://www.nsf.gov.cn/nsfc/cen/gjhz/cjw/cjw2011-10-26-06.html>.
- (3) Documents verifying the foreign partners' holding of or participation in research projects related to the submitted application, as well as a list of publications related to the submitted application by the foreign partners in the past 3 years.
 - (4) Letter of confirmation by the foreign collaborator: If the foreign collaborator cannot sign the English Application Form, a letter of confirmation by him/her should be provided. The letter of confirmation should contain true contact information about the foreign collaborator. The letter of confirmation should be written in official forms including the title, logo and contact information of the foreign collaborator's employer. In addition, the letter of confirmation should contain detailed information such as the title of the research, the content and period of cooperation, the way to share IPR, etc. The foreign collaborator should confirm in the letter that he/she has read and agrees with the English Application Form.

Priority Funding Areas of the International (Regional) Joint Research Program in 2014:

Department of Mathematical & Physical Sciences

- (1) Mechanical behavior of materials under extreme environment
- (2) Non-linear mechanics of complex systems
- (3) Sky surveys and space observations
- (4) New astronomical technological methods associated with the large telescopes
- (5) Superfast and super strong light physics and precision measurement physics
- (6) Spectrum of advanced materials and high-performance computing of physical processes
- (7) Low-dimensional systems of quantum transport experiments
- (8) Study of high performance particle detector
- (9) Hadron structure and new cutting-edge research of hadron states
- (10) Magnetically confined fusion beam injection and related physical and technical issues
- (11) Physical issues in new energy
- (12) Joint research based on large-scale scientific facilities at home and abroad

Department of Chemical Sciences

- (1) Process and mechanism of surface and interface chemistry
- (2) Analytical chemistry for life sciences
- (3) Molecular assembly, structure and function
- (4) Theoretical and computational chemistry
- (5) New system of materials chemistry related to energy and resources
- (6) Green chemical processes and technique
- (7) Natural products chemistry and drug discovery
- (8) Environmental pollution chemistry and control
- (9) Chemical biology

Department of Life Sciences

- (1) Modification, identification and control of proteins
- (2) Structure and function of nucleic acid
- (3) Self-renewal and directed differentiation of stem cells
- (4) Regulation of tissue organ development
- (5) Cellular and molecular mechanisms of immune response
- (6) Biodiversity and its maintenance mechanisms
- (7) Genetic network and genetic regularity of complex traits
- (8) Phylogeny and molecular evolution
- (9) Metabolism, secondary metabolism and regulation
- (10) Excavation and biological evaluation of germplasm resources
- (11) Analysis of important traits of major agro-biological genetic networks
- (12) Water, nutrient needs of major agricultural plants and mechanisms for efficient use
- (13) Occurrence of major agricultural plant pests and mechanisms for prevention and control
- (14) Occurrence of major agricultural animal diseases and its prevention and control
- (15) Formation of nerve cells and the loops and signal processing mechanisms
- (16) Biochemical basis of food storage and manufacturing

Department of Earth Sciences

- (1) Mineralization model, mineralization system and mechanism
- (2) Urbanization process and its effects on resources and environment
- (3) Environmental pollution and its impacts
- (4) Interactions between oceanic plate and the continental margin
- (5) Coupling relation between deep and surface earth processes
- (6) Seabed resources mineralization and accumulation theory
- (7) Global change and the surface process

- (8) Impact of climate change on surface earth processes and ecosystems
- (9) Exchange of energy and matter cycle in the climate system
- (10) Solar-terrestrial energy transfer between and its impact on human activities
- (11) Water resources and water cycle
- (12) Monitoring, early warning and risk prevention and control of geological disasters
- (13) Asia monsoon-arid environmental systems and global environmental change
- (14) Life process under extreme conditions
- (15) Mechanism and prediction of marine multi-scale dynamic process

Department of Engineering and Materials Sciences

- (1) Photoelectric functional materials
- (2) Energy materials
- (3) Environmental material
- (4) High-performance structural materials
- (5) Basic theory, preparation and characterization techniques of materials sciences
- (6) Law of efficient resource mining and its interactions with environment
- (7) Interface science of metallurgy and material preparation
- (8) Function and integration of complex electromechanical systems
- (9) Precise manufacturing of high performance parts / components
- (10) Efficient and clean use of fossil energy
- (11) Carbon dioxide capture and storage (CCS)
- (12) Smart grid infrastructure
- (13) Design principles and technology system for urban and rural energy-saving building
- (14) Urban science in environmental change
- (15) Basic theory and frontier technology of marine engineering
- (16) Whole life design and control engineering structures
- (17) Basic research on biomaterials and their surface and interfacial functions related to intervention medicine
- (18) Efficient use of water resources in changing environment
- (19) Mechanism, toxicological effects and control of combined pollution of drinking water
- (20) Interdisciplinary scientific issues on energy efficiency, use of renewable energy and greenhouse gas control
- (21) New materials and new artificial structural materials

Department of Information Sciences

- (1) Basic theory and key technology of electromagnetic vortex
- (2) Hybrid integrated circuit design
- (3) Wide band gap semiconductor UV detectors
- (4) THz science and technology
- (5) Intelligent network and E-Health science applications
- (6) Mobile Internet and its scientific applications
- (7) Data acquisition and modeling of the mechanisms of the human brain and body
- (8) Computational theory and methods for big data
- (9) New methods and applications of pattern recognition and machine learning under big data environment
- (10) Key area oriented high-performance computing
- (11) Energy-efficient real-time image and video processing technology
- (12) New method and realization technology of object-oriented control theory
- (13) Efficient algorithms and applications of complex optimization issues
- (14) Infrared and terahertz imaging
- (15) High-speed electro-optic modulators and coherent receivers
- (16) New energy-efficient light source
- (17) Biomedical sensor
- (18) Application of fiber optic sensing technology in geological disaster monitoring

Department of Management Sciences

- (1) Behavior based complex management system
- (2) Management science issues in emerging technology and service economy
- (3) Public policy research
- (4) Key management science issues with Chinese characteristics
- (5) Regional coordinated and sustainable development
- (6) Innovation systems and S&T policy

Department of Health Sciences

- (1) Cardiovascular diseases
- (2) Nutrition, metabolic, and diseases
- (3) Immunity and diseases
- (4) Tumor
- (5) Aging and diseases
- (6) Pain and analgesia
- (7) Mental illness and mental health
- (8) Infectious diseases

- (9) Eye, ENT and oral diseases
- (10) Injury and repair
- (11) Reproductive health
- (12) Health of women and children
- (13) Stem cells and diseases
- (14) Regenerative medicine
- (15) Medical imaging and biomedical engineering
- (16) New technologies and methods for disease diagnosis and treatment
- (17) Epidemiologic and preventive strategies for major diseases and injuries
- (18) Environmental and genetic factors and major diseases
- (19) Food hygiene
- (20) New drugs
- (21) Pharmacogenomics and metabolomics
- (22) Traditional Chinese medicine and Chinese material medica

International (Regional) Cooperation and Exchange Programs under Agreements/MOUs

Jointly organized and funded by NSFC and foreign science funding agencies (or research institutions and international organizations), the International (Regional) Cooperation and Exchange Programs under Agreements/MOUs support bilateral and multilateral joint research and academic exchanges between Chinese scientists and their foreign partners. NSFC has by far concluded 70 cooperation agreements/MOUs with science funding agencies and research institutions in 35 countries/regions. By negotiation, NSFC reaches agreements with its foreign partners on cooperation and exchange pattern, funding area, amount of awards, funding amount and review mechanism. Based on mutual agreement, NSFC will launch joint call for proposals with its foreign partners on their websites and then organize scientists to submit and review applications. The International (Regional) Cooperation and Exchange Programs under Agreements/MOUs include Joint Research Program, Personnel Exchange Program and Academic Conference Program.

The Joint Research Program under Agreements/MOUs includes bilateral or multilateral joint research projects funded by NSFC and its international partners under the framework of cooperation agreements /MOUs signed between them in hope of supporting Chinese researchers and their collaborators abroad to carry out research in basic sciences.

The Personnel Exchange Program under Agreements/MOUs aims to encourage NSFC grantees to participate in extensive international cooperation and exchange activities, and to enhance the innovativeness, talent training, disciplinary development and research quality of the on-going NSFC projects. Meanwhile, it encourages scientists to maintain sound bi/multilateral relations with overseas partners through wide cooperation and exchange, laying a solid foundation for future substantial collaboration.

Academic Conference Program under Agreements/MOUs is aimed at supporting scientists to hold bilateral or multi-lateral international conferences in China with a view to enabling Chinese scientists to keep pace with the latest research frontiers and hotspots in the international academic arena, to enhancing the partnership between Chinese scientists and their foreign peers, and to promoting the visibility of the results achieved by NSFC funded projects and raising the profile of China's academic community.

Applicants could refer to the following introductions and the calls for proposals irregularly launched on NSFC website for application eligibility, priority funding areas, funding duration, and application requirements. Besides, applicants could also refer to the International Cooperation column of NSFC's website for relevant information about these programs in 2014. An introduction of the funding opportunities under this category in 2014 is listed as follows:

Asia and Africa

By 2013, NSFC has signed bilateral agreements or MOUs on S&T cooperation with 11 scientific funding organizations in Asia and Africa and 8 international organizations in the world.

Japan

Japan Science and Technology Agency (JST)

The NSFC and JST Joint Research Program initiated in 2004 on the theme of "S&T for Environmental Conservation and Construction of a Society with Less Environmental Burden". Every year both sides negotiate and define specific priority areas for cooperation, followed by a bilateral workshop in the defined priority area. Participants in the annual workshops will propose concrete research topics for joint funding. Since 2013,

biomedical science is defined as the priority area for both sides.

The encouraged research topic for 2014 is clinical genomics research. The joint call for proposals will be launched by NSFC and JST on their websites respectively, and no more than 5 three-year projects are funded per year, with NSFC investing 2 million RMB for each project.

Japan Society for the Promotion of Science (JSPS)

The call for proposal is issued by both organizations on their websites in June every year. The application deadline is on Friday of the first complete week in September.

(1) Exchange Project

NSFC and JSPS jointly support no more than 10 three-year exchange projects (the exchange volume shall not exceed 60-person days each year) each year.

(2) Bilateral workshop

NSFC and JSPS jointly support 4 bilateral workshops per year organized by Chinese and Japanese scientists, of which two are held in China and two in Japan. Participants of the bilateral workshops from each side must come from at least three institutions.

South Korea

National Research Foundation (NRF)

The call for proposals is issued by both organizations on their websites in October and the deadline for personnel exchange project and bilateral academic workshop is usually in the middle of January of the next year. The joint funding will be decided by the Sino-Korean Joint Committee on Basic Science. 22 exchange projects and 10 bilateral academic workshops were funded in 2013. Around 30 bilateral projects including both exchange projects and bilateral workshops will be funded by both sides in 2014.

(1) Exchange Project

Around 20 two-year exchange projects are planned to be funded by NSFC and NRF in 2014.

(2) Bilateral workshop

Around 10 bilateral workshops are planned to be funded by NSFC and NRF in 2014. Participants of bilateral workshops from each side must come from at least three institutions.

Israel

Israel Science Foundation (ISF)

NSFC and ISF carry out their joint funding on the joint research project and bilateral workshop in the area of natural science.

(1) Joint Research Project

NSFC and ISF will launch a joint call for proposals in fields of life sciences and medical sciences in 2014. No more than 15 three-year projects are planned for joint funding with NSFC investing 2 million RMB for each project.

(2) Bilateral workshop

Each year, no more than 2 bilateral workshops are planned to be funded by NSFC and ISF. The workshop themes are decided by both sides through negotiation.

Japan & South Korea

A3 Foresight Program

Jointly sponsored by NSFC, Japan Society for the Promotion of Science (JSPS) and National Research Foundation of Korea (NRF), the A3 Foresight Program supports the cooperation of scientists from China, Japan and South Korea to conduct cutting edge research in selected strategic areas, so as to foster excellent young researchers and make contributions to the solution of common regional issues.

The priority funding area for each year usually follows the theme of the Northeastern Asia

Symposium jointly organized by NSFC, JSPS and NRF in the previous year. The priority funding area in 2014 is high-performance computing method and modeling.

The call for proposal will be simultaneously announced on the websites in December by the three parties and 2 five-year projects will be jointly funded, with NSFC investing 4 million yuan in each approved project.

Others

NSFC has signed scientific agreements for funding personnel exchange projects and bilateral workshops with the National Research Council of Thailand, Research Foundation of Thailand, Department of Science and Technology of India, Council of Scientific & Industrial Research of India,

Research Foundation of South Africa, Academy of Scientific Research and Technology of the Arab Republic of Egypt, and Pakistan Science Foundation etc. Bilateral projects are jointly decided case by case with mutual agreement.

International Scientific Organizations

1. Center of European Nuclear Research (CERN)

According to the cooperation agreement with CERN, NSFC supports Chinese scientists' participation in LHC experiment at CERN together with the Ministry of Science and Technology and the Chinese Academy of Sciences.

2. International Center for Theoretical Physics (ICTP)

About 50 Chinese young scholars are funded by NSFC every year in the areas of mathematics, physics and earth science to participate in various research activities at ICTP, such as summer seminars, short-term joint research or post-doctoral research.

The list for specific activities and an open call for candidates is announced on NSFC's website in November every year. Name list of selected candidates are further recommended to ICTP. The recommended candidates should apply to ICTP according to ICTP requirements.

3. International Institute of Applied Systems Analysis (IIASA)

NSFC encourages Chinese scientists to conduct multilateral cooperation with various IIASA project groups in the areas of energy, environment, land use, population, etc., and to jointly apply for research funding from various governmental organizations, private and national foundations, World Bank and EU Framework Program.

NSFC provides necessary supports fully or partially for 5-7 Chinese young scholars to participate in the annual 3-month Young Scientists Summer Program from May to August at IIASA every year. For detailed information, please refer to the IIASA website at www.iiasa.ac.at. Besides, NSFC also supports workshop, exchange and joint research projects jointly applied by Chinese and IIASA scientists.

As per its 10-Year Strategic Plan (2011-2020), IIASA encourages Chinese scientists and IIASA researchers to conduct joint scientific research on 3 global issues, i.e., food and water resources, energy and climate change,

poverty and peace, based on systematic analysis methods.

Based on mutual consultation, the call for proposals will be launched by NSFC on its website in due time.

4. Consultative Group on International Agricultural Research (CGIAR)

NSFC has reached agreements with 10 CGIAR institutes/centers (i.e., Bioversity, CIAT, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IFPRI, ILRI, and IRRI) to fund joint research projects conducted by scientists from both sides. The funding period for each project is 5 years. In 2013, a total of 9 joint research projects were jointly funded.

The call for proposals will be released by NSFC on its website in February every year, and the deadline for application is April 20th. No more than 12 projects are planned for funding in 2014 with an average funding amount of 2-3 million RMB per project for 5 years. For information about the priority funding areas in 2014, please refer to the call for proposals to be released.

5. United Nations Environment Program (UNEP)

According to the cooperation agreement between UNEP and NSFC, both sides will support scientists to conduct scientific collaborative research in fields of eco-system management, climate change and chemical management. Special emphasis is attached to cooperation with developing countries in Africa and Asian-Pacific regions.

Based on expert discussion, the 17 priority funding areas are defined for the years from 2013 to 2017 as follows:

Eco-systems: Research on the soil erosion mechanism and rain-fed farming on the sloping fields of the Upper Nile hilly areas; Amazon Basin ecosystem assessment system (elevation gradient+ rainforest); study on mechanisms for maintaining spatial patterns of the ecosystem diversity in East Africa; service functions of ecosystem in East African Natural Reserves (biodiversity hotspots); assessment of changes in land use and their effects on environment (application of China's satellite data product); centennial changes in Asian land-use and ecological environment elements.

Climate change: Ecological adaptation (Water cycle/water and climate change) in the Greater Mekong Basin; impact and response of climate change on the patterns and processes of ecosystems in Northeast Asia (China-Mongolia-Russia-North Korea-South Korea); climate and environmental changes in the semi-arid regions

in Central Asia; regional analysis of the impacts of climate change on Africa's food security and water resource vulnerability; mechanism and scenario analysis of the ecosystem degradation (desertification) in Niger River Basin in Africa.

Chemicals: key technologies and methods for global POPs monitoring and effectiveness evaluation; chemical hazard assessment and prioritization methods and tools; toxicity mechanism and screening methods for propagation and development of environmental endocrine disruptors (reproductive); survey methods for listing unconsciously produced POPs; life cycle assessment of typical chemicals and environmentally sound management techniques; substitutes and alternative processes for high-risk chemicals.

The call for proposals will be released by NSFC on its website in February every year, and the deadline for application is April 20th. Up to 3 projects are planned for funding in 2014 (1 project in each field), with an average funding amount of 3 million RMB per project for 5 years. For information about the priority funding areas in 2014, please refer to the call for proposals to be released.

6. International Union of Pure and Applied Chemistry (IUPAC)

According to the agreement among NSFC and Sao Paulo Research Foundation (FAPESP), the U.S. National Science Foundation (NSF), the German Research Foundation (DFG), and the International Union of Pure and Applied Chemistry (IUPAC), scientists from each country were co-funded to carry out joint research in the field of sustainable chemistry in 2013. IUPAC is responsible to provide the project implementation framework and scientific guidance including the launch, review and funding of multilateral projects under the support of all funding agencies and research organizations involved. This program required that applications should be submitted by PIs from at least 3 out of 4 countries that the contracting funding agencies and research organizations represented respectively. In 2013, NSFC funded 9 three-year projects with an average funding amount of 900,000 RMB per project.

Based on the consultation among IUPAC and each contracting funding agency, the next round of multilateral cooperation program will be launched in 2015, and specific funding areas are to be identified by the parties involved.

America and Oceania

NSFC has signed 19 scientific cooperation agreements or MOUs with science funding organizations and research institutions in 11 countries in America and Oceania. Categories of programs to be funded include joint research, short-term visits and bilateral academic workshops.

USA

The U.S. National Science Foundation (NSF)

Joint Research Projects

NSFC and NSF accept joint research applications in the areas of information sciences, biodiversity, etc. irregularly throughout the year. Both parties provide funds for scientists from their respective countries to cover research costs, international travel costs and local accommodation in the other country.

(1) NSFC-NSF Joint Research Program on Software

To promote joint research on software between Chinese and US scientists, NSFC and NSF together fund joint research projects with an implementation period of 3 years between scientists of both countries. NSFC provides up to 3 million RMB for each approved project, covering research costs, international travel costs and local accommodation of visiting researchers. Two projects were jointly funded by NSFC and NSF in 2013.

(2) NSFC-NSF Joint Research Program on Biodiversity

To promote joint research on biodiversity between Chinese and US scientists, NSFC and NSF together fund joint research projects with an implementation period of 5 years between scientists of both countries. NSFC provides up to 3 million RMB for each approved project, covering research costs, international travel costs and local accommodation of visiting researchers. One project was jointly funded by NSFC and NSF in 2013.

For information about the specific application requirements, please refer to the call for proposals to be released on NSFC's website.

The U.S. National Institutes of Health (NIH)

NSFC and the U.S. National Institutes of Health (NIH) signed an MOU on Oct. 14, 2010 and launched joint call in 2013 for joint research projects with a duration of 3 years on cancer, allergic diseases, infectious diseases including HIV/Aids and comorbidities, medical immunology, mental health, etc. A total of 33 projects were granted for joint funding with around 2

million RMB each project.

Based on mutual consultation, both sides will launch joint call for proposals in the field of HIV/AIDS in 2014, with an average funding amount of up to 3 million RMB per project for 3 years.

Canada

Fonds de recherche du Québec – Santé (FRQS)

Joint Research Projects

NSFC and FRQS plan to launch joint call for research proposals in the field of bio-medical sciences. For information about the funding areas, amount of awards and applications requirements, please refer to the call for proposals to be released on NSFC's website.

Australia

National Health and Medical Research Council of Australia (NHMRC)

NSFC and NHMRC concluded an agreement on cooperation in January, 2013 and plan to launch joint call for research proposals in the field of type-2 diabetes in 2014. For information about the funding areas, amount of awards and applications requirements, please refer to the call for proposals to be released on NSFC's website.

Europe

NSFC has signed agreements and MOUs on scientific cooperation with 31 science foundations or research councils in 15 countries in Europe. Activities to be funded include joint research projects, short-term exchange visits, and bilateral academic workshops.

UK

Royal Society (RS)

NSFC and the Royal Society of UK (RS) provide support for up to 30 joint projects with a period of 2 years. NSFC provides international travel costs for Chinese scientists and local costs for British scientists in China. RS provides at most 6,000 pounds for each project, covering international travel costs for British scientists to China and local costs for Chinese scientists in UK. In August, 2014, NSFC and RS will announce their call for proposal simultaneously in both countries. Chinese scientists shall submit proposals directly to NSFC and UK scientists to RS, and the results will come out in

January, 2015. Projects approved will start on April 1, 2015 and end on March 31, 2017.

Royal Society of Edinburgh (RSE)

NSFC and the Royal Society of Edinburgh (RSE) provide joint funding for 2-year joint research projects between scientists from China and Scottish region in areas of common interest, according to the MOU signed between NSFC and RSE. The specific areas for cooperation and the number of projects to be approved each year are decided by both sides through negotiation. NSFC provides international travel costs for Chinese scientists to UK and local costs for British scientists in China. RSE provides at most 6,000 pounds for each project, covering the international travel costs for British scientists to China and local costs for Chinese scientists in UK. NSFC and RSE will announce their call for proposal simultaneously in both countries at the end of 2014. Chinese scientists should submit proposals directly to NSFC and Scottish scientists to RSE, and the result will come out at the start of 2015. Projects approved start on May 1, 2015 and end on April 30, 2017.

Research Councils UK (RCUK)

(1) Workshop

NSFC will continue to cooperate with RCUK such as EPSRC, BBSRC, NERC, MRC and ESRC to fund small-scaled bilateral workshops co-organized by Chinese and British scientists.

(2) Joint Research Program

NSFC and RCUK support substantial collaborations between scientists of both countries in areas of common interest, in consideration of the existing cooperation between scientists. NSFC and the RCUK will announce their call for proposal after discussion, and scientists from both countries shall submit proposals to their respective funding agencies. According to the evaluation results, NSFC and RCUK will jointly make decisions for funding regarding research expenditure, international travel costs and living expenses for exchange of personnel. For detailed requirements, please refer to the call for proposals to be launched on NSFC's website.

Germany

German Research Foundation (DFG)

According to the agreement on cooperation between NSFC and DFG, both sides provide support for short-term (no longer than 3 months) research

visits, bilateral workshops and joint research projects.

(1) Joint Research Program

NSFC and DFG encourage substantial joint research between scientists of both countries. Funding for the projects includes research expenditure, international travel costs and living expenses for exchange visit. For detailed requirements, please refer to the call for proposals launched on NSFC's website.

(2) Workshop

Chinese and German scientists shall submit their applications for workshops to their own funding organizations 3 months in advance. The final decision for funding will be jointly made after evaluation and consultation. Applicants may submit their applications throughout the year.

(3) Exchange Program

Chinese and German scientists shall submit their applications to their own funding organizations 3 months in advance. The final decision for funding will be jointly made after evaluation and consultation. Applicants may submit their applications throughout the year.

(4) Major Interdisciplinary Joint Research Program

According to the agreement on cooperation between NSFC and DFG, Chinese and German research teams are encouraged to conduct major interdisciplinary joint research projects. Researchers from 3-5 research institutions on each side are encouraged to combine their research capacity and, based on mutual agreement on research topics and objectives, submit joint applications to NSFC and DFG respectively for long-term bilateral collaboration, interdisciplinary research and training of young scientists. Sound track record of long-term bilateral substantial cooperation and high-level principal investigators are required for application. The joint research should focus on major interdisciplinary issues through well design with a view to bringing about seminal research results, and the sub-topics should be closely interlinked and complementary so as to promote the development of disciplinary frontiers and interdisciplinary research. Complementariness and sustainability of bilateral collaboration are required and promotion of long-term cooperation in relevant fields is encouraged.

The collaborating research teams on both sides should submit corresponding pre-applications to NSFC and DFG respectively. For jointly accepted applications, NSFC and DFG will organize a workshop in either China or

Germany. In line with the conclusions of the workshop, NSFC and DFG will consult each other and decide together on whether to invite full applications from the applicants. The co-PIs on both sides will be notified of the joint decision. Chinese applicant should meet the requirements listed in the NSFC Regulations on the Management of International (Regional) Joint Research Programs as well as the joint call for proposals. Based on mutual agreement between NSFC and DFG on inviting full applications, applicants should submit full applications to NSFC and DFG respectively according to relevant requirements and procedures. Both NSFC and DFG will invite peer experts to conduct panel review of the applications. As per the recommendations of the panel, NSFC and DFG will make the final decision on funding according to each other's regulations and decision making procedures. Only those applications jointly approved by NSFC and DFG are qualified for joint funding. It will take 18-24 months from the launch of joint call for proposals to the final funding of the projects. The funding period of the major interdisciplinary joint research project is 4 years.

France

French National Center for Scientific Research (CNRS)

NSFC and CNRS support exchange visits with a duration of 3 years between Chinese and French scientists. NSFC funds up to 50,000 RMB per year to cover the international travel costs for Chinese scientists to France and the local costs for French scientists in China, and CNRS funds the local expenses for Chinese scientists in France and international travel costs for French scientists to China. For detailed application requirements, please refer to the call for proposals launched on NSFC's website.

French National Research Agency (ANR)

According to the MOU signed between NSFC and ANR, both sides encourage substantial cooperation in areas of common interest between scientists and research groups of both countries. For detailed application requirements, please refer to the call for proposals launched on NSFC's website in 2014.

Others

Under its respective agreements with CEA, INRA, and IFREMER, NSFC provides funding for joint research and bilateral academic workshops between Chinese and French scientists in the area of basic research.

Finland

Academy of Finland (AF)

According to the agreement of scientific cooperation between NSFC and the Academy of Finland (AF), both sides provides necessary support for exchange activities (usually less than 3 months) and bilateral academic workshops between Chinese and Finnish researchers.

(1) Joint Research Program

NSFC and AF encourage scientists or research teams of both countries to carry out substantial joint research in areas of common interest. Funding for the projects includes research expenditure and international exchange costs. For detailed requirements, please refer to the call for proposals launched on NSFC's website.

(2) Bilateral Workshop

Chinese and Finnish researchers shall submit their applications for bilateral workshops throughout the year to their respective funding agencies 3 months in advance, and the joint funding decision is made according to respective evaluations and consultation.

(3) Exchange Program

Chinese and Finnish researchers shall submit their applications for personnel exchanges and visits throughout the year to their respective funding agencies 3 months in advance, and the joint funding decision is made according to respective evaluations and consultation.

Netherlands

Netherlands Organization for Scientific Research (NWO)

According to the MOU between NSFC and the Netherlands Organization for Scientific Research (NWO), both sides support short-term academic studies, personnel exchange (usually less than 3 months) and bilateral academic workshops between Chinese and Dutch researchers.

(1) Joint Research Program

NSFC and NWO encourage scientists or research teams of both countries to carry out substantial joint research in areas of common interest. Funding for the projects includes research expenditure and international exchange costs. The call for proposals will be launched on NSFC's website in January 2013.

(2) Bilateral Workshop

Chinese and Dutch researchers shall submit applications for bilateral workshops to their respective funding agencies 3 months in advance, and both organizations will make joint funding decisions based on respective evaluations. Applicants may submit their applications throughout the year.

(3) Exchange Program

Chinese and Dutch researchers shall submit applications for personnel exchanges and visits to their respective funding agencies 3 months in advance, and both organizations will make joint funding decisions based on respective evaluations. Applicants may submit their applications throughout the year.

Belgium

National Fund for Scientific Research (FWO)

According to the MOU between NSFC and FWO, both sides support short-term academic studies, personnel exchange (usually less than 3 months) and bilateral academic workshops between Chinese and Belgian researchers.

(1) Exchange Program

Chinese and Belgian researchers shall submit applications for personnel exchanges and visits to their respective funding agencies 3 months in advance, and both organizations will make joint funding decisions based on respective evaluations. Applicants may submit their applications throughout the year.

(2) Bilateral Workshop

Chinese and Belgian researchers shall submit applications for bilateral workshops to their respective funding agencies 3 months in advance, and both organizations will make joint funding decisions based on respective evaluations. Applicants may submit their applications throughout the year.

Russia

Russian Foundation for Basic Research (RFBR)

In 2014, NSFC and the Russian Foundation for Basic Research (RFBR) will jointly support cooperation and exchange activities in natural sciences and engineering. In accordance with the agreement between NSFC and RFBR, the joint call for proposals is announced once a year and Chinese and Russian teams shall each have 5 researchers. Projects approved will receive a two-year funding of 90,000 RMB from NSFC, for Chinese researchers'

international travel and living expenses in Russia. RFBR will also provide funds for Russian researchers' international travel and living expenses in China. Altogether both sides fund up to 50 projects each year. The call for proposal in 2014 will be announced on the websites of NSFC and RFBR in early 2014.

Hong Kong and Macao SARs and Taiwan Region of China

NSFC supports various forms of cooperation and exchange between inland and Hong Kong, Macao, and Taiwan scientists in areas of mutual interests. By far, NSFC has conducted scientific cooperation with the Research Grant Council of Hong Kong (RGC), Beijing-Hong Kong Academic Exchange Centre, Macao Foundation, Macao Foundation for the Development of Science and Technology, and K. T. Li Foundation for the Development of Science and Technology. Cooperative activities jointly funded include academic conferences and joint research projects.

Hong Kong

NSFC and the Research Grant Council of Hong Kong (RGC) will continue to fund joint research in areas of natural sciences. Priority funding areas include information sciences, biological sciences, new materials, marine and environmental sciences, medical sciences, and management sciences.

Macao

NSFC will continue to support various activities of scientific cooperation and exchange with substantial contents between inland and Macao scientists. Emphasis will be put on research projects related to environmental protection, urban development, and modernization of traditional Chinese medicine.

Taiwan

NSFC has been dedicating to encouraging and promoting scientific cooperation and exchange between scientists on both sides of the Taiwan Straits. In 2014, NSFC will continue to support cross-Straits academic workshops held by scientists from mainland China and Taiwan. NSFC will also fund substantial joint research projects in the area of marine biology according to the consensus reached with K. T. Li Foundation for the Development of Science and Technology.

In view of the fact that some universities in Hong Kong and Macao have established branches of different forms in mainland China, NSFC will not accept applications by one scientist as both inland and outside PIs at the same time.

Sino-German Center for Research Promotion

The Sino-German Center for Research Promotion, jointly founded by NSFC and DFG in October, 2000, aims at promoting scientific cooperation and exchanges among institutions of higher learning in China and Germany in the fields of natural sciences, engineering sciences, and management sciences. NSFC and DFG provide respectively 50% of the Center's budget and the budget for 2014 will reach around 40 million RMB.

The budget of the Center is a special fund from NSFC and DFG. Scientists from universities and academic institutions of both China and Germany are able to apply for the funding. The funded projects by the Center will not be counted into the limitation on the number of projects one PI may hold according to NSFC regulations and require no on-going NSFC funded projects. However, applicants should be PIs or participants qualified to apply for the funding from NSFC. German applicants should apply in line with DFG requirements. The Center accepts proposals submitted jointly by Chinese and German scientists at any time of the year, but applications have to be submitted at least 3 months prior to the implementation of the projects.

The Center currently provides funds for the following categories of activities:

1. Joint Research Project

The Center supports Chinese and German scientists to conduct joint research in areas of common interest. In principle, applicants of such projects shall have been funded by the Center in the past, usually through bilateral academic workshops sponsored by the Center and should be grantees of NSFC or DFG funded research projects. The areas of cooperation shall be the priority areas of NSFC's funding. The fund for joint research project covers consumables, publishing and travel costs, as well as expenses related to the organization of meetings. The Center does not fund personnel salaries, for which German applicant may apply to DFG from German side. Funding for each project approved is usually 600,000-1,000,000 RMB (or equivalent Euros) for both Chinese and German scientists. The duration of the projects shall not exceed 3 years.

2. Bilateral Academic Workshop

The Center encourages Chinese and German scientists to have in-depth discussion on cutting edge issues in a certain scientific research area. The main purpose of the workshop, which can be held either in China or in Germany, is to foster joint research projects through discussion and exchange. Each workshop can have 15 participants from the sending party and 25 participants from the host party. Participants shall represent the academic level of the relative country and come from different universities or scientific institutions. The Center provides funding for international travel expenses and local subsistence of all formal participants and other necessary costs for the workshop. The Center does not provide funding for participants from industries or administrative institutions or postgraduates, nor multilateral or international workshops. Participants from a third country can be invited to attend the workshop and their costs will be covered by the workshop, but the total number of them should be no more than 20% of the number of participants from the sending side.

3. Sino-German Joint Research Group

The Center adopts flexible modules to fund Sino-German joint research groups for in-depth cooperation between Chinese and German scientists in clearly defined areas. Chinese and German scientists may apply for this program to plan for larger projects and establish necessary collaborative platform. Funding for this program covers costs for bilateral workshops, short-term exchange visits, joint research, publications and consumables, etc. Applicants may apply for funding according to the funding requirements of the Center, which does not provide staff salaries. Applicants must be participants of workshops or undertakers of projects funded by the Center so as to ensure a solid foundation for cooperation and good communications and coordination between collaborators. The funding period is 3 years and should not be prolonged.

4. Funding Schemes for Young Scientists

(1) Short-term Seminar

The scheme aims to introduce advanced scientific methods, techniques and their applications and provide training on specific issues in a certain area. The Center is able to fund 4 to 6 senior scientists from both countries as lecturers and participants shall be mainly university undergraduates, graduates or young researchers. The number of participants is assessed according to specific conditions, such as equipment and infrastructure of the laboratory, but it shall not exceed 40 people in total. The seminar can be

held either in Germany or in China and usually lasts at most 14 days, including two days for arrival and departure. The number of participants from sending party shall not exceed 15. Funding includes international travel, local accommodations as well as costs for the organization of the meeting and academic tours.

(2) Lindau Ph.D. Students Program and Lindau Postdoc Scholarship

The Center, together with Lindau Nobel Laureates Foundation, funds 35 (including 10 in the field of economics) excellent Ph.D. students or postdocs under the age of 35 to participate in the Nobel Laureate meeting in Lindau, Germany, followed by a week-long visit to the German research institutions. Candidates are selected throughout the country and must be recommended by their home institutions. The final approval list is decided by correspondence review and interviews by Chinese and German reviewers.

Grantees with Ph.D. degree of this program may apply for the funding from the Center for a stay of 6-12 months in Germany if they could get invitations from German research institutes or universities.

(3) Visit of German Excellent Young Researchers to China

This funding scheme launched by the Center for excellent young German scientists. During the trial period, grantees of DFG's Emmy Noether Program or other programs of equivalent quality, such as the principle investigators of SFB-excellent Young Research Groups, grantees of the ESF Starting Grants, Lichtenberg Professorship and principle investigators of Young Research Teams, can apply for. The Center funds German young scientists to come to China for academic visits and research, and explore bilateral cooperation with their Chinese partners. The funding covers international and domestic travel costs and local subsistence in China. Short-term academic visits usually last less than 2 weeks and the grantees can visit at most 3 cities, of which the visits shall be already arranged by host institutions and hosts, during their stay in China.

(4) Young Scientists Forum

The forum aims at providing an opportunity for Chinese and German young scientists to meet and discuss with the outstanding scientists in their own fields. The forum shall have a specific focused theme and can in principle invite at most 15 Chinese and 15 German young scientists under the age of 40, and several senior scientists depending on the scale of the forum. Funding includes international and domestic travel costs, local subsistence and other necessary costs for the forum.

5. Publication

The Center funds publication of proceedings, joint publications and special journals for scientific results of Chinese and German cooperation. Funding will be at most 5,000 Euros or 50,000 RMB. The Center does not fund publication of textbooks, translated works, etc.

6. Pre-Activity Planning

The Center invites application from qualified applicant who would like to pay a visit to make preparation and plans for a meeting or a project, and to organize small-scale meetings to formulate such plans. The funding is provided for a short visit and only 1 person could be funded.

The Center accepts applications for the above-mentioned 6 categories of activities jointly submitted by scientists from Chinese and German universities and research institutions. Applications must be written in both Chinese and German or Chinese and English, and submitted 3 months before the start of the applied activities (8 copies in written form and one electronic copy for each application). The content of the Chinese and German (English) version applications shall be the same. In the applications, the content, theme, academic significance and academic purpose of the project, the participants, contact information, detailed schedule as well as specific costs and distribution shall be specified. Related personnel costs shall be listed according to the funding standard set by the Center on its website. The applications will be evaluated by Chinese and German reviewers and the Center will make final decision according to the evaluation results.

Specific requirements and relevant information are available on the website of the Center: <http://www.sinogermanscience.org.cn>.

Research Fund for International Young Scientists

Established in 2009, the Research Fund for International Young Scientists aims to support foreign young researchers with excellent educational background, Ph.D. degrees and great potential to carry out their basic research in mainland China-based universities and academic institutes. Eligible applicants should have certain research experience and host institutions in China. The research fund is for now jointly operated by the Chinese Academy of Sciences, Ministry of Education (MOE) and NSFC as a

trial. Candidates are selected from those recommended by CAS and MOE, and have to submit individual applications which will be evaluated by NSFC expert panel. The host institutions in China are responsible for providing necessary working and living conditions for the applicants.

The applicants shall satisfy the following requirements

- (1) Excellent foreign young researchers with Ph.D. degrees, less than 35 years old on January 1 of year of application (born on January 1, 1979 or after).
- (2) No less than 3 years of experience in basic research in renowned universities and academic institutes, or postdoctoral experience.
- (3) Work in Chinese universities or research institutes successively for 6 months or 12 months.
- (4) Obey Chinese laws and NSFC's managerial rules during the stay in China.

The host institutions shall satisfy the following requirements

- (1) The host of applicant in the host institution is assigned as the contact person to provide consultation for the foreign applicant and assist him/her in managing the fund.
- (2) An agreement is to be signed with the applicant with the following content:
 - (i) Topic, direction and targets of the research;
 - (ii) Living and working conditions provided for the applicants during the stay in China;
 - (iii) Time period the applicants promised to work in the host institutions;
 - (iv) An agreement on protection of intellectual property rights.

In 2013, a total of 101 applicants were approved for funding with a budget of 19.5 million RMB, and 28 of the applicants were approved for renewed funding. In 2014, around 80 applicants are planned for funding and 20 grantees are planned for renewed funding with a total budget of 20 million RMB.

Funding Period

Currently funding period for the research fund lasts for either 6 months or 12 months, with a funding of 100,000 RMB and 200,000 RMB respectively.

Funding Content

Research costs and costs for international collaborative activities.

Application Procedures

1. New Project Application

After the applicant finalized his/her host institution in China, he/she should fill in the recommendation application form and submit it to the host institution, which in turn submit it to the Chinese Academy of Sciences (CAS) or the Ministry of Education (MOE) according to the administrative affiliation of the host institution. Then, CAS and MOE recommend the applications to NSFC. Applicants reviewed and approved by NSFC may log in NSFC's application system (ISIS) to fill in and submit the formal application form.

Supplemental Documents

- (1) A copy of cooperation agreement signed between the applicant and his/her host institution in China; (i)The agreement shall be signed between the applicant and the host institution, and include terms about provision of the local subsistence for the applicant ; (ii)Subsistence deadline: fully covering the period of the fund, or the terms of the agreement may require that the applicant should work full-time in China during the funding period; (iii)Signature refers to both the legal signature and official seal of the host institution.
- (2) A copy of the applicant's Ph.D. degree diploma, and representative publications by the applicant;
- (3) Two recommendation letters (at least 1 of the letters is written by a foreign scientist);
- (4) A copy of the first page of up to 5 representative publications.

Please refer to the Special Notice on the Research Fund for International Young Scientists announced on NSFC's website for more detailed information concerning the recommendation and application in 2013.

2. Renewed Project Application

Application Eligibility: Applicants should be PIs of on-going projects financed by the Research Fund for International Young Scientists.

Supplemental Documents

- (1) Application Form (Progress and achievements of the on-going projects should be clarified);
- (2) A copy of cooperation agreement signed between the applicant and his/her host institution in China; (i)The agreement shall be signed between the applicant and the host institution and include terms about

provision of local subsistence for the applicant; (ii) Subsistence deadline: fully covering the period of the fund, or the terms of the agreement may require that the applicant should work full-time in China during the funding period; (iii) Signature refers to both the legal signature and official seal of the host institution.

- (3) A copy of the PI's travel records during the funding period of the on-going project.

For detailed information about the recommendation, application and renewal application requirements in 2014, please refer to the special webpage of the Research Fund for International Young Scientists on NSFC's website (<http://www.nsf.gov.cn/nsfc/cen/gjhz/jjzb/index.html>).

International (Regional) Academic Conferences Held in China

This program funds scientists to hold international conferences in China with a view to enabling Chinese scientists to keep pace with the latest research frontiers and hotspots in the international academic arena, to enhancing the partnership between Chinese scientists and their foreign peers, and to promoting the visibility of the results achieved by NSFC funded projects and raising the profile of China's academic community.

The conferences held in China should be closely related to the on-going NSFC projects, and the themes of these conferences shall be of major significance to the progress of relative scientific disciplines in China and in line with NSFC priority areas and its implementation of major research plans. This program encourages bilateral/multilateral workshops and seminars with specific themes.

Eligibility of Applicant

Researchers holding or participating in on-going NSFC projects with the duration of no less than 3 years may send their applications to the relevant scientific departments of NSFC.

Funding Content

Costs for the conference start-up include the cost of preparatory meetings, conference documents printing, etc.

Supplemental Documents and Relevant Requirements

Supplemental documents include copies of approval documents granted by the authorities concerned in charge of the PI's home institutions, name list of foreign participants in the conference, and the announcement of the conference, etc.

Application Window and Channel

Proposals for international/regional conferences held in China should be submitted to the relevant science department of NSFC in charge of the on-going project no less than 3 months prior to the planned date of the conferences. Please note that no proposals for international/regional conferences are accepted by NSFC during its annual collective application submission period. For one conference, only one application is permitted by NSFC.