

Foreword

In accordance with the National Program for Medium- and Long-Term Scientific and Technological Development (2006-2020) and the 11th Five-Year Plan for the Development of the National Natural Science Fund of China, the National Natural Science Foundation of China (hereinafter abbreviated as NSFC) has been exactly holding on its strategy for supporting basic research, encouraging free exploration and playing a guiding role, earnestly implementing its working guideline of respecting science, enhancing democracy, expediting competition, encouraging cooperation, nurturing innovation and leading the future, always insisting on its evaluation principle of relying on experts, promoting democracy, funding excellent research, and advocating fairness and rationality to nurture original ideas and foster talents, and made remarkable achievements and positive contributions for the maturity of the national innovation system and the construction of the innovation-oriented country during the last five years.

NSFC has by far set up 3 categories of programs with respective preferential focuses, i.e. Research Program, Talent-Training Program, and Research Environment Program, which constitute the integrated funding system of the National Natural Science Fund. Research Program is aimed at achieving innovative basic research results, fostering a balanced and coordinated development of disciplines with special emphasis on certain key areas, facilitating interdisciplinary research, and stimulating original innovation, with a view to improve the level of basic research. Through the funding for young researchers to conduct independent research and assistance to researchers in regions lagging behind in basic research, Talent-Training Program is targeted at nurturing top talents and innovative research teams, fostering a talent pool for basic research and ultimately enhancing China's S&T competitiveness in the future. Research Environment Program is mainly intended to better the research facilities, to boost resource sharing, to optimize the favorable environment for basic research, and to promote the public understanding of basic research.

The year 2011 is the first year to implement the 12th Five-Year Plan for the Development of the National Natural Science Fund of China. Based on the overall layout of 12th Five-Year Plan, NSFC will adhere to its strategic orientation of "more emphasis on basic research, frontier research and talent training" and make greater efforts to optimize the funding policy. Through the implementation of the strategies for original innovation, fostering of innovative talents, open and cooperation, construction of an environment favorable for innovation, and management excellence, NSFC will strive to develop a more dynamic, more efficient and more open science funding system with Chinese

characteristics, thereby facilitating a balanced, coordinated and sustainable development of scientific disciplines, brings China into the world's best in respect of some mainstream scientific disciplines, nurturing high-caliber scientists and innovation teams with the world reputation, enhancing excellence of basic research, amplifying the international visibility of basic research, and strengthening the capacity for indigenous innovation in a number of key areas for laying a sound S&T foundation for achieving a sustainable social and economic development and accelerating China into an innovation-oriented country.

In order to give expression to the principle of openness, fairness and justness and help scientists better understand NSFC's funding policies, the *Guide to Programs of the National Natural Science Fund: 2011* (hereinafter abbreviated as the *Guide to Programs*) is published to all applicants for the selection of the proper categories of programs, research areas and orientations of investigation in their applying for the National Natural Science Fund with research topics proposed on their own initiative.

Most of the applications for the National Natural Science Fund are accepted during the batch application period every year. By an increase rate of 17.82%, a total of 115,259 research proposals were received during the batch application period in 2010, of which 115,179 research proposals being accepted by NSFC, which were increased of 17,424 applications in comparison with that in the same period of 2009. The other 80 proposals were declined for various reasons such as applications submitted by non-registered units, late submission or without electronic form or hard copies of applications. The increase of applications both by rate and in number witnessed in 2010 is lower than that in 2009 (i.e. an increase of 17,896 or by 22.41%). The number of applications for the Young Scientists Fund was continued to increase sharply by 27.18% in comparison with that in 2009. The number of applications for the General Program was also increased by the rate of 13.23% with that in 2009. The number of applications for the Fund for Less Developed Regions was continued to grow by 28.69% after a surge by 44.46% in 2009. Almost the same amounts of applications for the National Science Fund for Distinguished Young Scholars were received in 2010 as in 2009. In respect of the Major International Joint Research Program and the Joint Fund Program, the rapid growth of the number of applications was also witnessed in 2010.

After preliminary evaluation, NSFC notified in public that 4,165 applications were refused, accounting for 3.6% of the total applications received. A total of 389 appeals for re-evaluation were received before the deadline for appeal, and 339 of them were accepted and the other 50 appeals were rejected for lack of required documents and other reasons. After serious checking and verification, the previous decisions of rejection, both well-founded and justified in nature, were maintained for 305 appeals, and the other 33 appeals were approved in that the previous decisions of rejection were wrongly made,

accounting for 9.7% of all the appeals accepted. Therefore, a total of 111,047 applications for the National Natural Science Fund were accepted during the batch application period in 2010.

After compulsory review procedures, 13,030 projects in General Program, 436 projects in Key Program, 14 projects in Major Program, 333 projects in Major Research Plan Program, 63 projects in International Joint Research Program, 198 projects in National Science Fund for Distinguished Young Scholars, 8,350 projects in Young Scientists Fund, 1,326 projects in Fund for Less Developed Regions, 29 projects in Science Fund for Creative Research Groups, 83 projects in Joint Research Fund for Overseas Chinese Scholars and Scholars in Hong Kong and Macao, 36 projects in National Science Fund for Talent Training in Basic Research, 80 projects in Research Fellowship for International Young Scientists, 55 projects in Special Fund for Basic Research on Scientific Instruments, 195 projects for Joint Funds, 8 projects in Fund for Promoting Public Understanding of S&T, 36 projects in Special Grant for Key Academic Journals, 21 projects in Special Fund for Teenage Participation in S&T Activities, and 13 projects in Special Fund for Excellent State Key Laboratories were funded. Besides, there are a number of applications yet to be approved. For more information about the statistics and analysis of the applications and final approvals, please refer to the respective relevant sections of this *Guide to Programs*.

This *Guide to Programs* present an introduction of various types of programs, of which applications will be accepted during the batch application period in 2011. Notes on application and regulations on the limits on the total number of applications for one applicant are introduced in detail. The overall funding facts and priority areas of the General Program, Key Program, the Young Scientists Fund, and the Fund for Less Developed Regions are introduced in the section of each scientific department. For the General Program, the overall funding principles and specified requirements as well as notes on applications are provided in addition to the introduction of the overall funding statistics of each scientific department. Apart from that, the trend of development, funding scopes and requirements in diverse disciplines are described by respective divisions of the scientific departments. Other types of programs are introduced in general terms. Special requirements for each of them are introduced seriatim in the main text of this *Guide to Programs*.

Applications for programs which are not listed in the *Guide to Programs* will not be accepted during the batch application period, and the call for proposal to these programs and related guiding information will be announced at the NSFC's website (<http://www.nsf.gov.cn>) or by other media. Applicants are advised to pay due attention to the updating of related information.

In the consecutive procedures of application acceptance, evaluation and program management, NSFC will, in light of the *Regulations on the Management of the National Natural Science Fund* and relevant program management guidelines, strive to standardize management procedures, optimize the peer review mechanism, encourage indigenous innovation, emphasize on research merits, nurture a favorable environment for research, support disciplinary intercrossing and tolerance of different academic ideas, strictly observe pertinent regulations on conflict of interest and confidentiality, and sincerely cherish the supervision from the scientific community and the general public. All scientists are welcome to submit high-quality applications for the National Natural Science Fund.

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