

NSFC

国家自然科学基金委员会
National Natural Science Foundation of China

Responsible Conducts of Research: Perspectives and Practices of NSFC

Jianquan Guo

Director General, Office of Research Integrity, NSFC

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Main contents



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Responsible Conduct of Research

Research ethics & Research integrity

- The protection of human and animal subjects in research
- Environmental friendliness and safety
- Avoidance of scientific misconduct
- Legal and reasonable use of research funds
- Prevention of financial conflicts of interest

Why imperative to normalize conduct of research?

Irresponsible conducts of research not only damage the reputation of the respondents, but bring shame on their home institutions, their fields of research, and even their home countries, which seriously undermine the public respect for science, knowledge, and talents.

Main contents



Problems Found

- **Common Research Misconducts**
 - Plagiarism
 - Fabrication
 - Falsification
- **New Research Misconducts**
 - Letting a third party to submit a paper and forge fake peer reviews
 - Online Purchase of Papers
 - Online Purchase of Grant Proposals

Plagiarism



Still exist

Case 1: The respondent **plagiarized** the proposal assigned to him

- **Alleged:** The main framework and paragraphs of the respondent's proposal for NSFC General Program were plagiarized from an NSFC awarded proposal which was submitted by another applicant.
- **Investigation:** The respondent plagiarized the proposal assigned to him for mail review by NSFC in 2014.
- **Administrative actions:** The respondent was debarred from **applying** for NSFC grants for a period of **4 years** and debarred from NSFC **peer review** capacity for a period of **7 years**, and was criticized by a **circulated letter of reprimand**.

Fabrication



Still exist

Case 2: A paper was retracted for **fabricated** contents

- **Alleged:** A paper labeling supported by NSFC award was retracted for fabricated contents.
- **Investigation:** the paper was retracted by the editorial office on the grounds that the first author forged one of the two images of the transgenic lines by the image software during the writing of the paper.
- **Administrative actions:** the respondent was debarred from **applying** for NSFC grants for a period of **6 years** and was criticized by a **circulated letter of reprimand**.

Fabrication



Still exist

Case 3: Fabricated data

- **Alleged:** Two papers belong to duplicate publications.
- **Investigation:** The data used in the papers was fabricated. It's verified that although the two papers focus on different material systems, one paper plagiarized many paragraphs from the other, with 2 identical figures being used in the two papers. And the respondent, both first author and correspondent author, admits that fabricated data was used in one of the two papers.
- **Administrative actions:** One respondent was debarred from **applying** for NSFC grants for a period of **5 years**; another respondent was debarred from **applying** for NSFC programs for a period of **3 years** and was **criticized by a circulated letter of reprimand**, with his **grant** awarded by NSFC being **withdrawn** and **funds recovered**.

Falsification



Still exist

Case 4: Falsify research experience

- **Alleged:** The respondent defrauded for illegitimate benefits by use of other's academic achievements and committed egregious research misconducts.
- **Investigation:** The respondent committed serious frauds in applying for NSFC program by (1) falsely claiming participation in research projects funded by Singapore Ministry of Education Academic Research Fund and Singapore National Research Foundation; and (2) falsely claiming authorship of 8 high impact factor papers by another research with the same name with the respondent.
- **Administrative actions:** Debarred from **applying** for NSFC programs for a period of **7 years** and was **criticized by a circulated letter of reprimand**, with his **grant** awarded by NSFC being **withdrawn** and **funds recovered**.

Letting a third party to submit a paper and forge fake peer reviews



Emerged
endlessly

Case 5: Fake peer reviews

- In 2015, such academic publishers as BioMed Central, Springer, Elsevier, and Nature successively retracted **117** SCI papers by Chinese authors due to counterfeiting peer reviews. And then in 2017, the journal Tumor Biology also pulled **107** papers from authors mostly based in China for the same reasons.
- NSFC conducted investigation into **60** retracted papers **related to NSFC-funded projects** and took strong measures against **134** respondents and **1** research institution by **withdrawing 74** awarded grants and **terminating** peer review of **64** grant proposals.

Online Purchase of Papers



Emerged
endlessly

Case 6: Purchase of Papers

- **Alleged:** A paper was plagiarized from other researcher's research findings.
- **Investigation:** The reported paper was purchased by the respondent online. The content was a total copy of other researcher's research findings, with other authors being listed without their informed consent and support of NSFC funded project being labeled without permit of the PI.
- **Administrative actions:** Debarred from **applying** for NSFC programs for a period of **7 years** and was **criticized by a circulated letter of reprimand**.

Online Purchase of Grant Proposals



Emerged
endlessly

Case 7: Purchase Grant Proposals

- **Alleged:** Detected by NSFC similarity checking system that two applicants from different home institutions submitted two research proposals highly similar in content .
- **Investigation:** The two proposals were purchased by the two respondents online from the same seller, resulting in two highly similar proposals.
- **Administrative actions:** Debarred from **applying** for NSFC programs for a period of **4 years** and were **criticized by a circulated letter of reprimand**.

Policy and Procedure Installation Lags behind Oversight Practice



For instance, currently there is no clear-cut penalties for such research misconducts such as online purchase of research papers and grant proposals, as well as forgery of peer reviews that cropped up in recent years

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NSFC's Standpoint and Principles

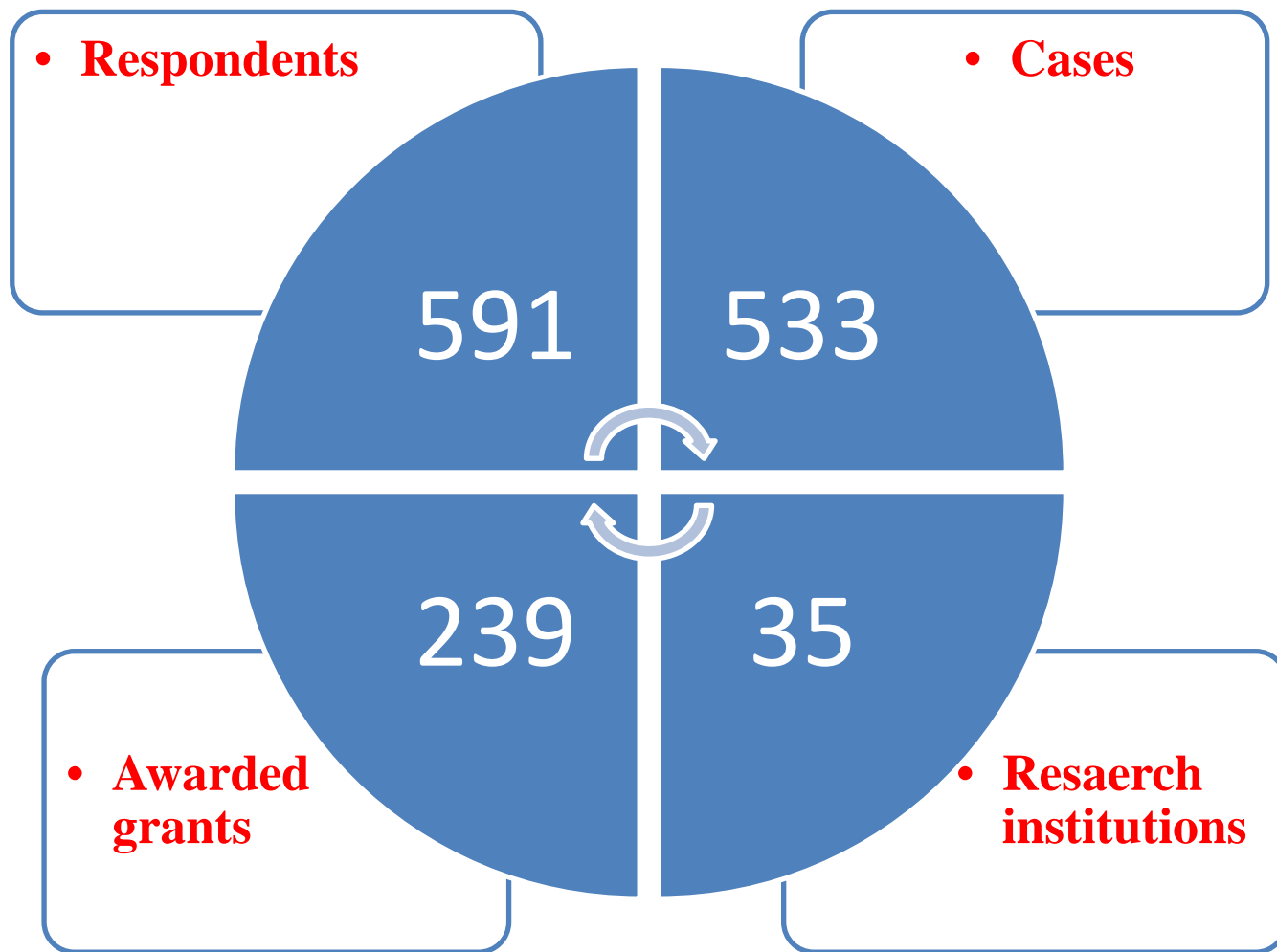
NSFC's stance

Zero Tolerance

Combination of Punishment and Education

Building healthy academic ecology

Zero Tolerance



(Data from 2013 -2018)

Combination of Punishment and Education

- **Publicity and education of research integrity and academic self-discipline.**
- **Combining punishment and education, tempering justice with mercy.**
- **Typical cases publicized on NSFC's homepage.**
- **Press releases in 2013, 2014 and 2016.**

Combination of Punishment and Education



监督委员会 处理决定

2018年查处的不端行为案件处理决定

2017年查处的不端行为案件处理决定

2015-2016年查处的不端行为案件处理决定

❏ (1) 2015-2016年查处的科研不端行为案件处理决定

2013-2014年查处的不端行为案件处理决定

❏ (1) 近期查处的科研不端行为典型案例及处理决定

❏ (2) 国家自然科学基金项目申请与执行过程中典型科研不端行为案例处理决定通报

❏ (3) 关于费志强的处理决定

2013年以前查处的不端行为案件处理决定

❏ (1) 关于任升峰的处理决定

❏ (2) 关于高鹏、姚素英的处理决定

❏ (3) 关于贺海波、吴理茂学术不端行为的处理决定

❏ (4) 关于中国民航大学张连顺抄袭他人成果的处理决定

❏ (5) 关于武汉大学艾勇抄袭他人论文的处理决定

❏ (6) 关于崔建伟抄袭和剽窃他人论文的通报

❏ (7) 关于中国水利水电科学研究院李贵宝申请国家自然科学基金项目弄虚作假的通报

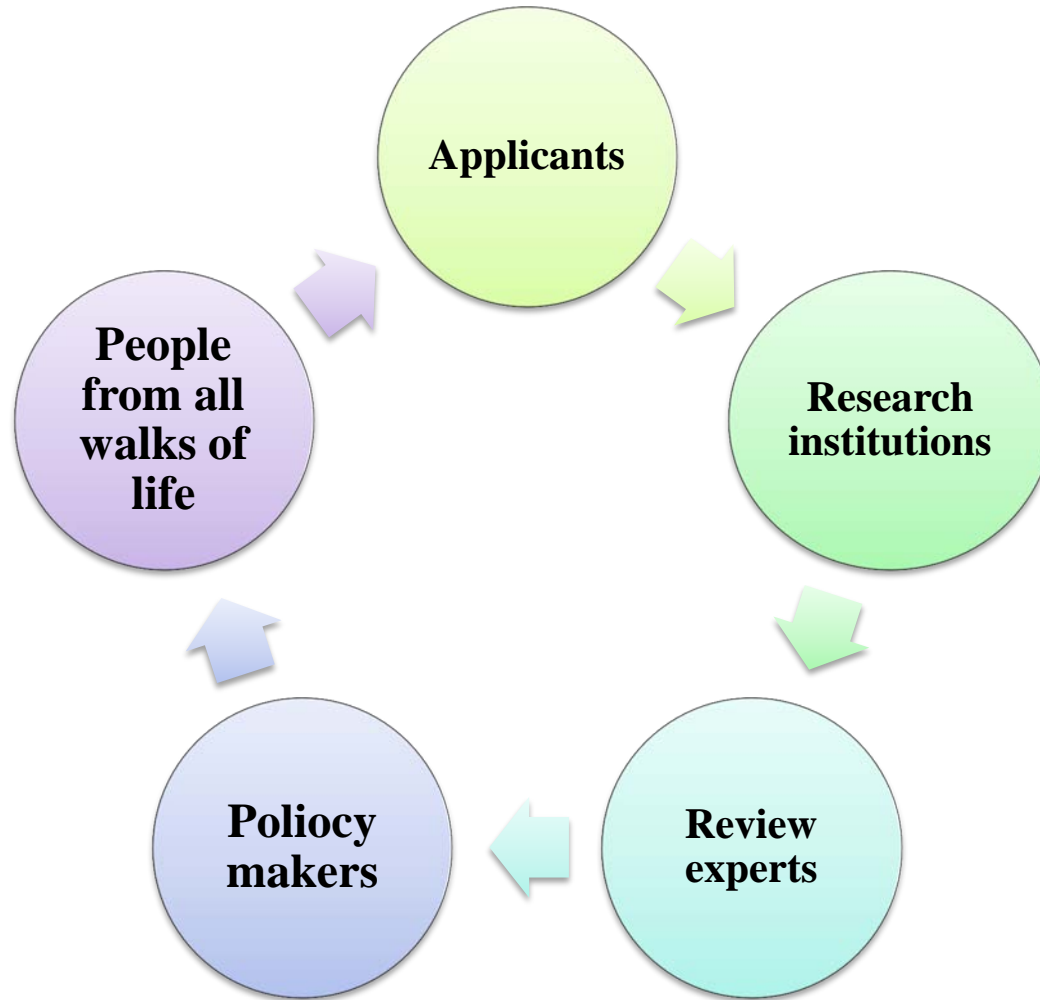
❏ (8) 关于第三军医大学苏炳银申请国家自然科学基金弄虚作假的通报



Combination of Punishment and Education



Building healthy academic ecology



Main contents



Measures Adopted by NSFC

- **Establishment of NSFC Supervision Committee**
- **Proactive Prevention of Irresponsible Conducts of Research**
- **Resolute Crack-Down on and Effective Prevention of Academic Pseudo-Innovation**
- **Implementation of an Evaluation System Conducive to Researchers' Devotion to Research and Innovation**

Establishment of NSFC Supervision Committee

- In 1998, NSFC Supervision Committee was set up as the first academic supervision body under a government agency in charge of science and technology management.



Strengthening the research ethics and academic spirits in the science community of China, and propping up original scientific and technological innovation.

Proactive Prevention of Irresponsible Conducts of Research

Four-party commitment

Similarity checking of the research proposals

On-site supervision during panel review meetings.

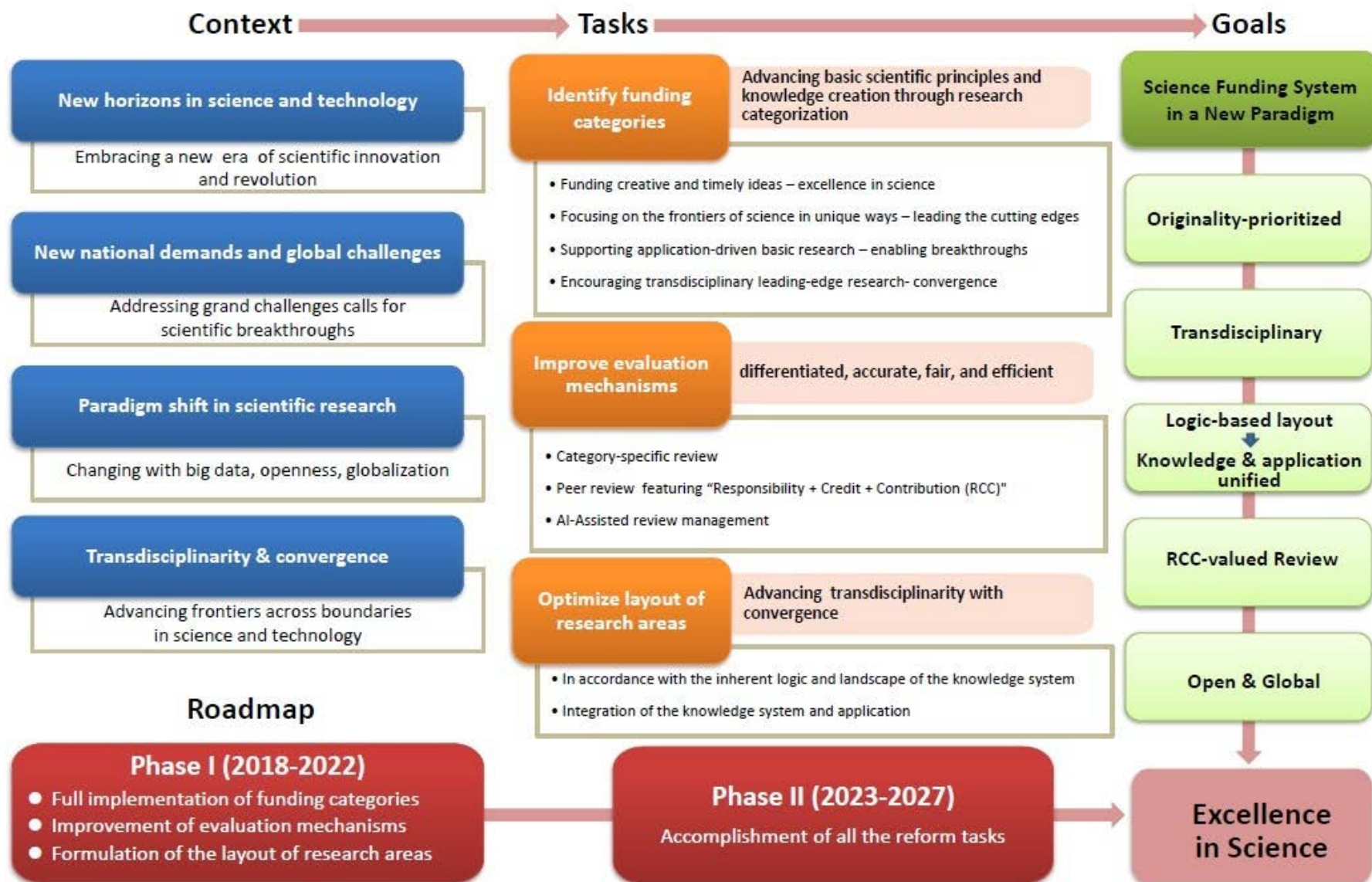
Resolute Crack-Down on and Effective Prevention of Academic Pseudo-Innovation

- **Academic pseudo-innovations,**
 - **overhyping research proposals**
 - **blindly following hot research topics**
- **Open up the green channel for researchers to properly implement and adjust grant use.**
- **Draw clear warning lines for malicious abuse and waste of research funds from the central government.**

Implementation of an Evaluation System Conducive to Researchers' Devotion to Research and Innovation

- **Strengthening academic self-discipline, reforming research evaluation, optimizing the institutional environment, standardizing the internet governance.**
- **Do away with the research evaluation mechanisms that are simply and solely based on published papers, academic titles, education background and awards of the researchers.**
- **A classified evaluation system should be set up to play an active role in building a sound research environment.**

Highlights of NSFC's Reform



A photograph of a large, multi-story building with a red-tiled roof and arched windows. A prominent red flag is flying on a tall pole in the foreground. The building has a modern architectural style with a mix of red and beige tones. The sky is blue with some white clouds. In the foreground, there are green trees and bushes.

Thank you
for
your attention!