

Established Principles of Countermeasures against Unjust Practices in Scientific Researches

RIKEN established basic principles of countermeasures to be taken in case any unjust practices by researchers surfaced during scientific research. RIKEN publicized, in December 2004, details of unjust practice relating to research papers made by a researcher belonging to the organization, and has since studied measures to prevent such unjust practices, and presently established countermeasures to be taken should any suspicion of recurrence occur, as well as details of actions to be taken by the people concerned.

Research injustices representing unjust practices in scientific studies are specified as fabrications, alterations, plagiarism, etc. To prevent such unjust practices, researchers are obliged to retain experimental notes, and paper data containing records of various kinds of measured data, etc. for a period of at least 5 years after the announcement of achievements.

Basic Policies Regarding Research Misconduct

1. Introduction

Misconduct in scientific research is unethical. Not only is the scientist who commits such misconduct morally censured, but when a researcher affiliated with the Independent Administrative Institution RIKEN perpetuates such misconduct, this brings dishonor to everyone who works at RIKEN, tarnishes RIKEN's good name and credibility, and causes major damage to RIKEN as a whole.

These Basic Policies aim to prevent research misconduct by researchers affiliated with RIKEN and, when an incident of misconduct occurs, to provide the guidelines necessary for prompt and appropriate resolution. They also set forth the standards for research activity at RIKEN and practices that must be strictly observed, as well as provide guidelines for what actions should be taken by whom when a researcher or researchers at RIKEN come under suspicion of scientific misconduct.

2. Research misconduct

Research misconduct refers to misconduct in scientific research and includes the following acts that may occur in the process of making research proposals, performing research, reviewing research, and reporting research results. Inadvertent or unintentional errors and differences of opinion are not regarded as research misconduct. (This definition and those cited below are based on the "Federal Policy on Research Misconduct" issued by the US Office of Science and Technology Policy and outlined in the *Federal Register*, Vol. 65, No. 235, December 6, 2000. Pages 76260-76264.)

- (1) Fabrication: Making up data or results and recording or reporting them.
- (2) Falsification: Manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- (3) Plagiarism: The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

3. Persons to which this Directive applies

All persons involved in RIKEN's research activities.

4. Standards of conduct and practices that must be strictly observed

4-1 Standards of conduct

A person involved in research work should take pride in being a researcher and should be aware of the obligations inherent in such a position. The researcher must abide by the following standards.

- (1) Do not commit research misconduct.
- (2) Do not aid or abet research misconduct.
- (3) Do not allow others to commit research misconduct.

4-2 Practices that must be strictly observed

To ensure healthy research activity and to create a research environment in which misconduct cannot occur, all Chief Scientists heading research laboratories and teams, group directors, and team leaders must do the following.

- (1) Properly check all research reports, various data, and research procedures at all laboratories and within all research teams.
- (2) The laboratory notebook, and any other similar recordkeeping medium, is not the personal property of any one individual but rather is a "tangible item" as defined in the RIKEN Regulation titled "Management of Research Results"

(directive No. 14, revised March 31, 2005) that must be properly maintained and managed by the laboratory head as per RIKEN's accounting regulations, and that belongs to RIKEN in accordance with the relevant provisions of the Work rules for Fixed Term Contract Employees, Work Rules for Indefinite Term Employees, and the Rules for Special Postdoctoral Researchers. Laboratory heads should make sure that all laboratory members are fully aware of this and know how to properly make entries in the laboratory notebook.

(3) All laboratory notebooks and other paper or electronic records of data should be kept on file for a given period of time (5 years unless stipulated otherwise) even after the publication of research papers or the announcement of research achievements and should be made available in response to inquiries from other researchers.

(4) When jointly publishing a paper, the share of responsibility between the main author and collaborators should be made clear.

5. Burden of proof in cases of research misconduct

A RIKEN researcher who is suspected of research misconduct has a responsibility to explain the facts of the case to RIKEN.

6. Response and measures related to research misconduct

6-1 Response at the first suspicion of research misconduct

Requests for consultation, investigation, and reports of research misconduct can be made to the Auditing and Compliance Office at any time. Depending on the circumstances, the Director of the Auditing and Compliance Office may order a preliminary inquiry.

The same response is required when research misconduct is revealed by media reporting.

6-1-1 Preliminary inquiry

When it has been decided to conduct a preliminary inquiry, the Director of the Auditing and Compliance Office shall implement the inquiry with the assistance of others at RIKEN who are specialists in the particular field of research in which misconduct is suspected.

6-1-2 Investigation committee

The Director of the Auditing and Compliance Office shall report the findings of the

preliminary inquiry to the RIKEN President. Should the President consider a full investigation necessary, an investigation committee of outside specialists shall be promptly convened in accordance with the RIKEN regulations for establishing investigative committees.

6-1-3 Conducting an investigation

The Director of the Auditing and Compliance Office may, if it is considered necessary to preserve important documents, require all affected divisions and sections to implement the following measures.

- (1) Prohibit the subject or subjects of the allegations from coming to work (salary is paid as usual).
- (2) Prohibit the subject or subjects of allegation from contacting anyone with vested interests.
- (3) Temporarily close the laboratory or laboratories concerned.
- (4) Secure all items that may be relevant to the investigation.
- (5) Any other measures deemed necessary.

6-1-2 Investigation committee

The Director of the Auditing and Compliance Office shall report the findings of the preliminary inquiry to the RIKEN President. Should the President consider a full investigation necessary, an investigation committee of outside specialists shall be promptly convened in accordance with the RIKEN regulations for establishing investigative committees.

6-1-4 Measures for continuing research

The Director of the Auditing and Compliance Office may order the relevant divisions and sections to implement measures that will allow other laboratory members to continue their research. Likewise, measures should be taken to preserve samples or specimens when a laboratory is closed.

6-2 Defense hearing for the subject or subjects of allegations

The investigation committee must provide the subject or subjects an opportunity to refute the allegations.

6-3 Making inquiry findings available

The Director of the Auditing and Compliance Office must make sure that the

findings of the investigation are made available to everyone involved.

6-4 Opportunity for objections

Objections to the findings of the investigation committee must be filed with the Director of the Auditing and Compliance Office within 10 days after the findings of the committee have been made public.

6-5 Measures to be taken when research misconduct has been confirmed

6-5-1 Treatment of the person or persons who have committed research misconduct

The President shall decide on the punitive measures to be taken against the person or persons whose research misconduct has been confirmed by the investigative committee, in accordance with the recommendations of a disciplinary committee established on the basis of RIKEN rules and regulations.

6-5-2 Freezing of research funds

The person who has committed research misconduct shall be prohibited from using any research funds, including both internal and external competitive funding, other than money for the maintenance of research equipment and the like.

6-5-3 Returning of research funds

The person who has committed research misconduct may be required to return all or part of research funds that have already been received.

6-5-4 Publication of investigation results

A summary of the findings of the investigative committee are, in principle, to be made public.

6-5-5 Treatment of laboratory head and others in supervisory positions

In the event that the head of the relevant laboratory is deemed to bear some responsibility for the research misconduct, measures shall be implemented as required by RIKEN's work rules and other regulations.

6-6 Measures to be taken when research misconduct is not confirmed

In the event that the President concludes from the results of investigation that there

was no research misconduct, the Director of the Auditing and Compliance Office shall require all divisions and sections to implement the following measures.

- (1) Cancel all punitive measures implemented when research misconduct was first suspected.
- (2) Notify all parties to the investigation that the research reports and other papers by the suspected person are appropriate and correct.
- (3) Implement whatever measure (including publication) may be required to protect the suspect from incurring any disadvantage as a result of the investigation and to restore the person's good name as quickly as possible.
- (4) Provide support for the accused, including emotional and mental support.
- (5) Any other measures that may be deemed necessary.

7. Points of concern

7-1 Support for activities

RIKEN shall provide support, including psychological support, to the extent possible to all laboratory and team members of the suspect's laboratory as soon as an investigation is launched.

7-2 Safeguarding those who cooperate in the investigation

- (1) RIKEN will provide safeguards as necessary to ensure that there is no disadvantage to those who cooperate with the investigation of a case of research misconduct.
- (2) In the event that there is any deliberate attempt to deceive or trap a researcher when an investigation, including a preliminary inquiry, reveals no wrongdoing, RIKEN will treat such deception as a deliberate obstruction of research activity and shall take measures against the perpetrator in accordance with RIKEN's work rules.

7-3 Duty to cooperate

All officers and employees of RIKEN are required to cooperate in the investigation of research misconduct.

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Statement on Scientific Misconduct and its Prevention

Whether the objective is to satisfy personal curiosity or to fulfill national dictates, a scientist has the obligation to pursue research with self-discipline and integrity to the best of one's ability, and the right to take public credit for research results.

RIKEN is the foremost comprehensive natural sciences research institute in Japan. In addition to pioneering new research fields in the natural sciences, RIKEN pursues strategic research in important fields in an endeavor to live up to its responsibility to society by achieving research results that will benefit the public welfare. RIKEN is, there is no doubt, at the center of Japan's world-class advanced research. More than at any other scientific institution therefore, RIKEN's scientists must remain fully aware of their responsibilities and rights as they vie with their cohorts in other countries

Yet, despite the high moral standards that are essential to scientific endeavor, there

have been all too many incidents of fabrication, falsification, and plagiarism in recent years. RIKEN, sad to say, has been no exception.

Such deception by a scientist is a betrayal of society's trust and the dreams society has invested in science. It is as well, a betrayal of science itself, and an act that can only be called suicidal. Every scientist working at RIKEN should practice rigorous self-discipline, and should act quickly to prevent any attempts at deception by others.

The scientist must be fully aware that deception in scientific research is a despicable act of treachery, a betrayal of the dreams and hopes that society has entrusted to us.

As devotees of scientific endeavor, we, the scientists of RIKEN, hereby declare that

1. We will be on guard at all times in our pursuit of scientific truth to ensure that we never deceive others.
2. We will never acquiesce to deception by others.
3. Those in supervisory positions will daily strive in our supervision of subordinates to ensure that there is never an opportunity for deception. And they will be thorough in ensuring that all objective data and documentation are properly maintained and preserved.
4. The author or authors of any papers or other publications bears the responsibility, and must be prepared at all times, to objectively explain and support all findings and assertions.