

Our Efforts to Achieve Research Integrity Through Dialogue with Researchers

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Initiating an Institute-wide Discussion on the Roles of Scientists and Research in Society

- a) A 2004 incident involving the publication of fraudulent research papers by RIKEN scientists was the first case of research misconduct in RIKEN.
- b) There were no effective institutional or national guidelines at the time.
- c) We considered it very important to have ongoing dialogue between RIKEN's researchers and management in the process of establishing RIKEN's basic policy on research misconduct.

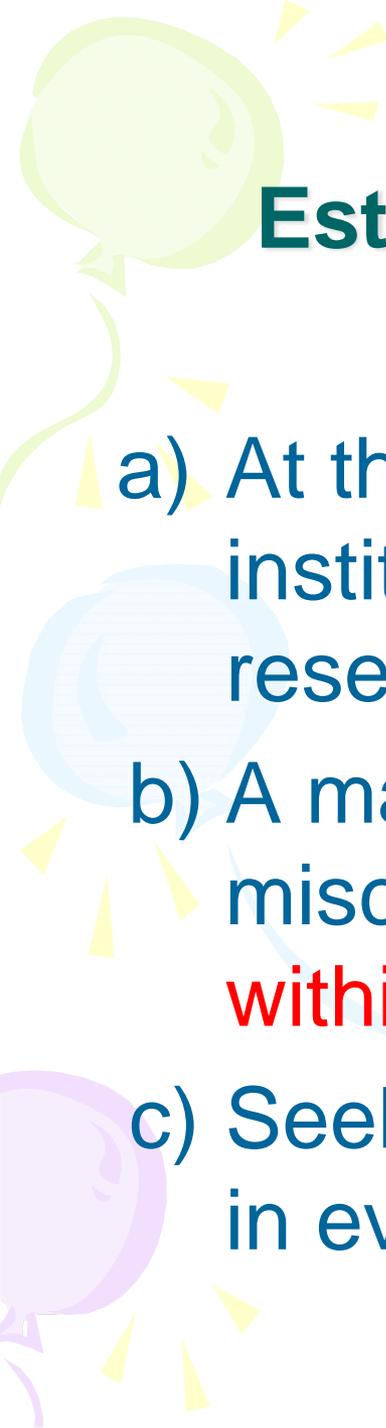
Publication of Fraudulent Research Papers by RIKEN Scientists in 2004

a) a two-step investigation.

- 1) RIKEN specialists in the fields conducted a preliminary investigation.
- 2) a formal investigative committee including both RIKEN and outside specialists examine the experimental records and conducted hearing of the person involved.

b) RIKEN's action

- 1) RIKEN advised the two principal authors and the first authors to retract their papers.
- 2) One paper was retracted but the other was corrected as an erratum. Finally these researchers left their employment voluntarily.



Establishing an Institutional Policy on Research Misconduct

- a) At that time, there was no effective institutional or nationwide guideline for research misconduct.
- b) A major factor leading to research misconduct is **lack of communication within and between laboratories.**
- c) Seeking **to instill a sense of responsibility** in every RIKEN researcher.

Discussions on Research Misconduct among RIKEN's Researchers (1)

The Science Council deliberated the issue for almost a year.

Some of the comments emerging out of the discussion were as follows:

- “It is a given that there should never be any kind of research misconduct. **Is it really necessary for scientists to spell this out?**”
- “The head of the laboratory should create **an atmosphere in which it is impossible to have research misconduct.**”
- “We should issue a statement that no RIKEN scientist will be involved in research misconduct or overlook someone else’s research misconduct. **Our statement should be like a vow or oath for all RIKEN scientists.**”
- “**Our statement should be addressed to the global community, not just to RIKEN scientists.** That is likely to be more effective in raising awareness of ethical issues among scientists.”

Discussions on Research Misconduct among RIKEN's Researchers (2)

“Statement on Scientific Misconduct and its Prevention” (November 2, 2005)

- Research misconduct by a scientist is,
 - “a betrayal of society’s trust and the dreams society has invested in science.”
 - “a betrayal of science itself, and an act that can only be called suicidal.”

RIKEN Management's Basic Policies on Research Misconduct (1)

RIKEN management referred to

- a) the US Federal Policy on Research Misconduct (issued by the US Office of Science and Technology Policy in 2000)
- b) the domestic debate within Japan for guidelines on the issue of research misconduct.
- c) **Fabrication, Falsification and Plagiarism (FFP).**

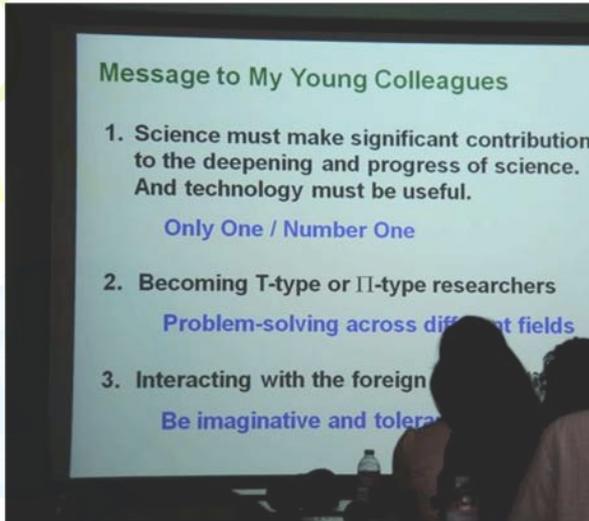
RIKEN Management's Basic Policies on Research Misconduct (2)

Basic Policies Regarding Research Misconduct

(December 22, 2005)

- a) RIKEN's researchers are obliged to retain the notes on their experiments and all paper records for a period of **at least 5 years after the announcement of research results.**
- b) The Basic Policies emphasize the need for preventive measures. These include ,
 - 1) creating a research system that makes it difficult to commit research misconduct but does not also hinder research.
 - 2) making it possible for highly motivated researchers to carry out their work with pride.
 - 3) **focusing on research that will benefit society and fulfill the responsibilities that RIKEN and researchers have to society.**

Promoting Problem-solving Science and Dialogue on the Topics of “Science in Society” and “Scientists in Society” (1)



Promoting Problem-solving Science and Dialogue on the Topics of “Science in Society” and “Scientists in Society” (2)



Thank you for your attention.

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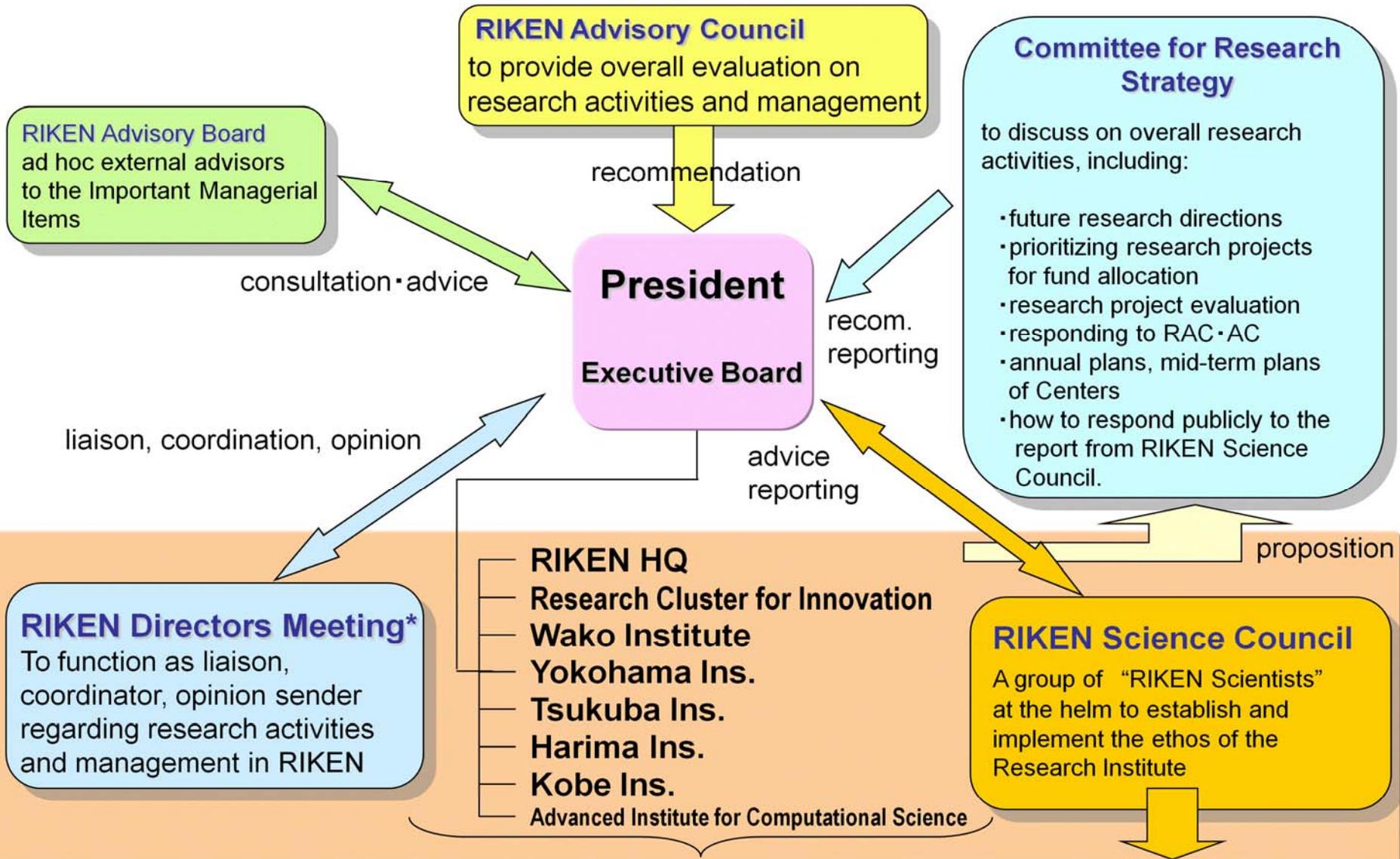
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measures, policies, planning for research and development

Messages to the government and outside world

RIKEN Science Council

for Scientific Governance

Committee Members

Chairman: **Director, Advanced Science Institute(ASI) K. Tamao**

Steering Committee Leader: **T. Hirano**

Steering Committee members (8):

T. Hirano, H. Okamoto, A. Koseki, H. Sakurai, K. Shirasu, T. Tahara, S. Hayashi, And Y. Yamazaki

RIKEN Science Council members (30):

- **Executive Director 1, ASI: 13, RNC: 2, BSI: 2, BRC: 1, RSC: 2, OSC: 1, SSBC: 1, BASE:1, PSC:2, RCAI: 2, CDB: 1, CMIS: 1**

Discussion Subjects

The purpose of the RIKEN Science Council is to act as an advisory body to the RIKEN President, examining issues and making proposals for

(1) New areas of research that are founded upon a long-term perspective; (2) Measures to promote research efficiency; and (3) Other recommendations, such as for measures that will educate and promote understanding among the general public regarding RIKEN research projects that have far-reaching implications for society.

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Next-Generation Supercomputer R&D Center



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RAL-RIKEN (UK)
BNL-RIKEN (USA)
MIT-RIKEN (USA)

The most important issues for humanity

The need is for science and technology that will solve these problems.

(UN Secretary-General Annan's summary of the 2002 Earth Summit in Johannesburg)



Environment

Water
Energy
Health
Agriculture
Biodiversity
+
Poverty