## Statement

# Code of Conduct for Scientists

— Revised Version —



Science Council of Japan January 2013



Professor Takashi Onishi, President of Science Council of Japan (SCJ)

As an organization representing the scientists of our country both internally and to the outside world, the Science Council of Japan comprises 210 scientists appointed to their respective fields by the Prime Minister and approximately 2,000 associate members appointed by the president. It offers recommendations to the government and to society, partakes in collaborative academic activities with international academic organizations, develops cooperative relations with local scientists and academic organizations, and engages in activities to return to the public the scientific and academic research results obtained through academic forums and open symposiums.

The "Code of Conduct for Scientists" statement is a general indication of the positions that should be taken by scientists themselves as they approach their research with integrity, subsequent to deliberation by the Science Council of Japan. We hope that this Code of Conduct will be reviewed by all scientists and research institutions in our country, and that it will serve as an aid for scientists when they are considering autonomously how they should deal with individual, specific case studies related to research ethics.



Professor Yoshiaki Kobayashi, Vice-President of Science Council of Japan (SCJ) (Committee Chairman, Subcommittee to Examine Relations with SCJ, Society, and Government; Examination Committee for Reform, Science Council of Japan)

Against a background of occurrences of cases of unauthorized use of research funds, the Science Council of Japan issued its statement "Code of Conduct for Scientists" in 2006, creating a stir toward realizing responsible research activity.

However, the unauthorized use of research funds and cases of forged research papers are still occurring, and while there is debate (deliberation over concerns that research would be used for purposes not intended) over the ambiguity of the use of scientific research related to anthrax and avian flu viruses, issues are arising, spurred by the Great East Japan Earthquake and the nuclear power reactor accident, as to the status of social responsibility of scientists regarding how they may return those research results to society.

Bearing these issues in mind, the Scientific Council of Japan set up a Subcommittee to Examine Relations with SCJ, Society, and Government; Examination Committee for Reform and once again held deliberations over its statement, "Code of Conduct for Scientists," and in 2013 revised the Code of Conduct that it had previously released, in a form that takes into consideration the issues of today.

We hope that this Code of Conduct will be reviewed not only by individual scientists but also by the respective research organizations, and that it will be useful in their creation of guidelines related to research ethics and for the development of their own codes of conduct.

#### 1 Background for Drafting

In order for scientists to obtain the trust and mandate of society, advance independent and autonomous scientific research, and promote the healthy development of science, the Science Council of Japan determined and released "On the Code of Conduct for Scientists" on October 3, 2006, a basic statement of its code common among all academic fields. The statement has been made known to research institutions such as universities, and in response, each of the institutes has been making autonomous responses.

Since then, there have been occurrences of cases of misconduct within research activities, such as falsified data and plagiarism of articles, as well as the issue of the responsibility borne by scientists, which received close attention on the occasion of the Great East Japan Earthquake; due to these issues and the deliberation that took place concerning the issue of so-called dual use, we decided to revise the statement at this time.

#### 2 Revised Details

Revisions have been made on the following points:

- (1) Taking into account the above-mentioned background, we added to the foreword and also to the main text descriptions regarding research that answers to social wishes; dual use of scientific research outcomes; research integrity; science in society; and legal compliance.
- (2) In so doing, we organized the composition into "I. Responsibilities of Scientists", "II. Research Integrity", "III. Science in Society" and "IV. Legal Compliance", organized descriptions, and made final adjustments to the text.

# **Code of Conduct** for Scientists

#### Science Council of Japan

Science is a system of knowledge based on the principles of reason and empirical proof that is assiduously built up over time, and constitutes an irreplaceable common asset of all humanity. Scientific research is an act that creates new knowledge by boldly pursuing the challenges of unknown fields.

Science and scientific research exist both with and for society. Therefore, research activities based on scientific freedom and the subjective judgments of scientists only gain social recognition once they are premised upon public trust and the mandate of the people. Here, the word "scientists" refers to researchers and specialists engaged in activities that create new knowledge, or in the use and application of scientific knowledge, in all academic fields ranging from humanities and social sciences to natural sciences, regardless of which institution they belong to.

While scientists engaged in such intellectual activities enjoy the prerogative to pursue truth under academic freedom based on their own expert judgments, independent of the interests of specific authorities or organizations, as experts they also bear a grave responsibility to respond to the mandate given to them by society at large. Especially in the modern world, where scientific activities and their results exert a vast and profound influence on all humanity, society demands that scientists always make ethical judgments and engage in ethical actions. There are also societal demands for the role that should be played by science in the development process for policy and public opinion.

The Great East Japan Earthquake and the accident at Tokyo Electric Power Company's Fukushima Dai-ichi Nuclear Power Plant that took place on March 11, 2011 brought about the need for scientists to reexamine whether they had truly responded to the trust and mandate given to them by society and also, the issues requiring scientists to make all-out efforts toward the reconstruction of devastated regions and the revitalization of Japan. Furthermore, in order for science to contribute to realizing a more affluent human society through its own sound growth and development, scientists must establish ethical norms to strictly control their own conduct, while fulfilling their obligation of accountability to society and consciously taking part in building and maintaining sound relationships between science and society, as well as with policy and decision makers. Ethics for scientists also constitute a basic framework whereby society can demonstrate its understanding of science and seek dialogue with science.

Based on the fundamental recognition described above, the Science Council of Japan herewith indicates a Code of Conduct consisting of ethical principles that should originate in the autonomy of scientists and are minimum requirements common to all academic fields. Adherence to such ethical principles is essential, both to ensure the quality of scientific knowledge and for individual scientists and the scientific community to gain the trust and respect of society at large.

#### I Responsibilities of Scientists

#### (Basic Responsibilities of Scientists)

1 Scientists shall recognize that they are responsible for assuring the quality of the specialized knowledge and skills that they themselves create, and for using their expert knowledge, skills and experience to contribute to the health and welfare of humankind, the safety and security of society and the sustainability of the global environment.

#### (Attitude of Scientists)

2 Scientists shall always make judgments and act with honesty and integrity, endeavoring to maintain and improve their own expertise, abilities and skills, and shall make the utmost effort to scientifically and objectively demonstrate the accuracy and validity of the knowledge they create through scientific research.

#### (Scientists in Society)

3 Scientists shall recognize that scientific autonomy is upheld by public trust and the mandate of the people, understand the relationships between science, technology, society, and the natural environment from a wide-ranging perspective, and act in an appropriate manner.

#### (Research that Answers to Social Wishes)

4 Scientists shall recognize that they are responsible for answering to the wishes of society to investigate into truths and to achieve various issues. When using research funds that are to be provided for establishing the research environment and for conducting research, scientists shall always recognize that such broad social expectations exist.

#### (Accountability and Disclosure)

5 Scientists shall strive to disclose and actively explain the roles and significance of their own research, evaluate the possible effects of their research on people, society and the environment as well as the changes that their research might engender, neutrally and objectively disclose the results of this evaluation, and build a constructive dialogue with society.

#### (Dual Use of Scientific Research Outcomes)

6 Scientists shall recognize that there exist possibilities that their research results, contrary to their own intentions, may be used for destructive actions, and shall select appropriate means and methods as allowed by society in conducting research and publicizing the results.

#### II Research Integrity

#### (Research Activities)

7 Scientists shall act with integrity according to the spirit of this Code of Conduct in drafting, planning, applying for, implementing, and reporting their own research. By reporting their research results through such means as papers, scientists shall take responsibility as well as obtaining recognition for their achievements in accordance with the role that they played. Scientists shall ensure that research and survey data are recorded, stored and rigorously handled, and not only refrain themselves from any misconduct such as fabrication, falsification or plagiarism, but also refrain from aiding or abetting such misconduct.

#### (Establishing Sound Research Environments and Thorough Educational Enlightenment)

8 Scientists shall recognize that establishing and maintaining fair research environments where responsible research can be conducted is one of their important duties, and shall work continuously to improve the quality of research environments in the scientific community and their own institutions, and toward educational enlightenment preventing misconduct. Moreover, they shall also seek the understanding and cooperation of the public in achieving these goals.

#### (Consideration for Research Subjects)

9 Scientists shall respect the dignity and rights of individuals who cooperate in their research, and shall safeguard and give proper consideration to their welfare. They shall also treat animals and other research subjects with all due care and respect.

#### (Relations with Others)

Scientists shall constructively criticize the results of other scientists' research, humbly listen to the criticism of others, and exchange opinions with an attitude of sincerity. Moreover, they shall properly give credit to other scientists' intellectual findings and achievements, as well as respecting the honor and intellectual property rights of others. They shall also participate actively in mutual assessment among scientists in the scientific community, particularly of their field of expertise.

#### Science in Society

#### (Dialogue with Society)

11 Scientists shall participate actively in dialogue and exchange with citizens, for better mutual understanding between society and the scientific community. As well, in order to resolve various issues and realize welfare in society, they shall also work to provide scientific advice effective for policy making to persons involved in the planning and determination of policies. On such occasions, scientists shall aim to give advice based on consensus among scientists, and, when differences of opinion exist, shall offer explanations that are easy to understand.

#### (Scientific Advice)

12 Scientists shall conduct research activities with the objective of contributing to public welfare, and offer fair advice based on objective and scientific evidence. At that time, they shall be aware of the gravity of the impact and of their responsibility that their statements may make on public opinion building and policy making, and shall not abuse their authority. As well, scientists shall make maximum efforts to ensure quality in their scientific advice, and at the same time clearly explain the uncertainty associated with scientific knowledge as well as the diversity of opinions.

#### (Scientific Advice to Policy Planners and Decision Makers)

13 When scientists offer scientific advice to persons who plan or decide on policy, they shall recognize that while scientific knowledge is something to be duly respected in the process of creating policy, it is not the only basis on which policy decisions are made. In the event that a policy decision is made that diverges from the advice of the scientific community, scientists shall request, as necessary, accountability to society from the policy planner and/or decision maker.

#### **IV** Legal Compliance

#### (Compliance with Laws and Regulations)

14 Scientists shall observe all laws, regulations, and relevant rules in their activities, including the implementation of research and the use of research funds.

#### (Rejection of Discrimination)

15 In their research, education, and academic activities, scientists shall respond to others fairly on a scientific basis, respect individual freedom and character, and not discriminate against individuals based on race, gender, status, ideology and beliefs, or religion.

#### (Avoiding Conflicts of Interest)

16 In their research, reviews, evaluations, judgments, scientific advice and other scientific activities, scientists shall pay sufficient heed to the presence of conflicts of interest between individuals and organizations, or between different organizations, and shall properly address problems paying all due attention to the public interest.





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