

Revised on July 16, 2010.

Preamble

Seoul National University (hereinafter referred to as “SNU”) is not only an institution of higher education producing outstanding individuals but also a leading Korean research institute boasting of research scholars such as faculty, researchers, and graduate students. SNU’s researchers, through academic advancement, have great responsibilities to set examples of contributing to both Korean society’s development and the mutual prosperity of mankind.

Researchers’ intellectual curiosity acts as an impelling force for research, and research triggered by curiosity can give birth to creative outcome only when supported by a favorable environment. Academic freedom breathes life into each and every process of research. Social convention, prejudice, and customs can sometimes paralyze curiosity about a new domain of inquiry and prevent fueled curiosity from being connected to creative outcome. Therefore, SNU’s researchers, who are expected to contribute to social evolution through their creative research, must be guaranteed their freedom to study without any tangible or intangible restriction.

They, however, must not forget that freedom comes with responsibilities. Research conducts, being social actions, cannot be free from norms that are accepted in society. Furthermore, research members of SNU, a leading research institute in Korea, have responsibilities to show good examples of following social norms. In addition, researches by SNU attract much attention from the international community beyond the local community of Korea. Their research outcome, therefore, shall comply with international norms, and their research ethics have a broad implication, i.e., the ethics may affect the credibility of an individual researcher as well as SNU where he/she belongs as well as the credibility of Korea.

The world is changing; for the last half-century, Korean society has changed faster than the international community. In the coming knowledge-based society, the academic standard and level of technology of a country are considered to be important measures of its national power, and universities stand at the center of knowledge competition. Society demands universities and individual researchers for incessant research competition

and evaluation of their research capabilities. Furthermore, the social and economic effect of gradually expanding scientific technology sometimes gives rise to a fierce state around research outcome. Environmental changes require new behavioral norms related to study. These research ethics guidelines are prepared as the foundation whereby members of SNU meet the newly emerging social needs in a changing environment.

Chapter 1 Responsibility and Obligation of Researchers

Article 1 [Academic Freedom and Social Responsibility] SNU researchers have the right to carry out creative research based on academic freedom and also recognize keenly the fact that their research influences human cultural society in the long run.

Article 2 [Responsibility as a Leader] ① A professor shall faithfully lead researchers and students so that their research may be performed creatively.

② A professor shall have his/her researchers and students become well-acquainted with ethics standard including research ethics guidelines that they should abide by in the course of performing research.

③ A professor shall impartially grant authorship and distribute resources to researchers and students and treat them fairly.

④ A professor shall support future academic generations such as post-doctoral researchers, etc., so that they may grow into independent researchers.

Article 3 [Responsibility When Receiving Research Expenses Support] ① A researcher shall, if he/she receives full or partial financial support for the research expenses, properly disclose the fact and transparently manage the financial resources.

② In case of receiving support for research expenses, academic integrity and freedom shall not be restricted.

③ In cases wherein an academic essay is prepared based on the results of a research service or materials obtained in the course of research service, the fact of receiving support for the research expenses, in principle, shall be specified.

Article 4 [Responsibility to Be Kept When Expressing Research Career] ① A researcher's own teaching career or research career shall be neither exaggerated, distorted, nor written in a fraudulent manner.

② Any research career that is unfavorable to a researcher himself/herself shall not intentionally be reduced or omitted for personal gain such as support for research expenses.

Chapter 2 Integrity in Research Presentation

Article 5 [Principle] A researcher shall, in presenting his/her research results, maintain

academic integrity as much as possible by complying with the following matters:

1. He/She shall make a correct, truthful description when reporting or presenting his/her own research results;
2. In cases wherein a researcher finds a matter that violates these research ethics guidelines after presenting his/her research results, he/she shall withdraw without delay all or part of the research results; and
3. He/She shall not publish his/her own research result in mass media in an exaggerated manner.

Article 6 [Recording of Research Material and Deducement of Research Results] A

researcher shall perform research based on correct and verified research materials and deduce research results that coincide with truth and present them. Furthermore, he/she shall refrain from any of the following acts:

1. Act of fabricating, recording, or reporting research data or research material under the provision of Article 14, Chapter 3;
2. Act of manipulating research materials by arbitrarily changing research data, adding something thereto, or leaving it out; and
3. Act of deriving an untrue research result by interpreting research materials in an exaggerated, reduced, or distorted manner.

Article 7 [Use of Research Outcome by Other Persons] ① In preparing the research literature or a research proposal, a researcher shall, in principle, express the contents thereof in his/her own sentences based on in his/her own research idea or research data.

- ② In preparing the research literature or a research proposal, a researcher shall not use the research outcome by any other person and which has already been presented or published (including unpublished outcomes such as research proposal or manuscript) in its original form or other transformed form as if it were his/her own research outcome.
- ③ In preparing the research literature or a research proposal, a researcher may partially use the research idea, research data, and sentences by any other person within the scope that does not affect the originality of his/her own research. However, in such case, correct indication of its source or citation shall be made, with the researcher refraining from engaging in any of the following acts:
 1. Act of expressing all or any part of the research idea and research data by any other person using a different way of description as if it were his/her own research outcome;
 2. Act of using the sentences written by any other person as if they were his/her own sentences (case of using two or more sentences written by other persons without indication of source or citation shall be presumed to correspond to such act, and its final judgment shall be made considering the characteristics of a major field of study

- and the opinions of the relevant academic field); and
3. Act of using writings by any other person as if they were his/her own writings by extracting and combining those writings through transformation such as word correction, replacement by synonym, etc. (However, cases wherein the creative nature is recognized in the selection or arrangement of subject matters and correct indication of its source or citation is made shall be excluded.)
 - ④ Even in the case wherein correct indication of such source or citation has been made, a researcher shall not heavily rely on another person's research outcome or its recomposition to the extent that may affect the originality of his/her own research. However, cases of introducing, summarizing, or evaluating research trends in the relevant academic field, like a review article, shall be excluded.
 - ⑤ Notwithstanding the provisions of Paragraphs (2) and (3), in cases wherein research outcomes by another person and which have already been presented are inserted into a textbook, other books corresponding thereto, or a published data file and currently used as general knowledge, a researcher may use all or part of such research outcome without indication of its source and citation.

Article 8 【Use of One's Own Research Outcome】 ① In preparing research literature, a researcher shall use, in principle, his/her own research idea, research data, and sentences and include research results not yet presented before.

- ② In preparing the research literature or a research proposal, a researcher may partially use his/her own research results that have already been published within the scope that does not affect the originality of such research. However, such research data shall be used with correct indication of its source and shall not be suggested as if it were presented for the first time in such research. In cases wherein no less than one paragraph or five sentences are consecutively reused from those prepared in the past, correct indication of its source or citation shall be made.
- ③ In cases wherein his/her own research outcomes that have already been presented are inserted into a textbook and currently used as general knowledge, the researcher may use all or part of such research outcome without indication of its source and citation.

Article 9 【Limitation on Multiple Publications】 ① A researcher shall not publish multiple times all or part of his/her own theses or writings that have already been published in the same language or other languages without correct indication of its source and citation. Where research data or sentences, even if partially different from each other, are recognized as identical with each other as a whole, the same shall apply.

- ② Notwithstanding the provision of Paragraph (1), a researcher may make a publication falling under any of the following subparagraphs (in cases of Subparagraphs (1) ~ (6), however, correct indication of such source or citation shall be made; however, an exception may be made considering the characteristics of a major field of study and

the opinions of the relevant academic field):

1. When publishing all or part of his/her thesis in a separate thesis or book;
 2. When publishing all or part of his/her research result report in a separate thesis or book;
 3. When gathering together already published theses in a book;
 4. When publishing all or part of the same thesis or book in the same or different language with approval from the copyright owner;
 5. When, in publishing such thesis after a brief paper (letter, brief communication, etc.) has been published in an academic journal and changed into a long thesis, the researcher publishes the brief letter paper by adding research data, interpretation, or information, etc., in the course of performing research thereto;
 6. When all or part of a thesis or a book already published is selected, compiled, and published in the form of anthology by another editor or published in a special issue of an academic journal;
 7. When all or part of a thesis or a book already published is written in an easy-to-understand manner and published in a non-academic publication such as educational book, popular magazine, etc.; or
 8. Other publication corresponding to any of the above subparagraphs and which does not affect academic integrity.
- ③ The registration of research results that have already been presented into intellectual property rights shall be permitted, notwithstanding Paragraphs (1) and (2.)

Article 10 [Authorship of Work] ① In performing co-work, a researcher shall clarify the role of each researcher and mutual relations and do his/her best in order to fulfill his/her own responsibility.

- ② A researcher shall, without fail, indicate researchers who have made significant contributions to the planning of a research, establishment of concept thereof, performance, analysis, and preparation of performance result as authors or presenters.
- ③ When presenting a research result, the order of indicating authors or presenters shall be determined by the common consent of the participating researchers, and such decision shall be made considering the characteristics and reasonable practice of the relevant major field of study.
- ④ The institute/department where a presenter of a research result belongs shall be indicated as the institute/department where the presenter belonged at the time of performing experiments and writing, etc. However, where another practice is in common use in the relevant major field of study, such practice may apply.
- ⑤ A person who has not made a contribution to the planning of research, establishment of concept thereof, performance, analysis, and preparation of performance result shall not be included in the authors or presenters on grounds of acknowledging statement or honorable treatment, etc.
- ⑥ A principal investigator or a professor shall not urge researchers or students controlled

or guided by himself/herself to give him/her authorship or billing that does not correspond with his/her contribution.

Article 11 [Research Misconduct] A researcher who has committed an act falling under any of the following subparagraphs in the entire course of research intentionally or through gross negligence (it refers to the case of significantly violating the ordinary duties of care as a researcher) such as proposal/performance/report/presentation, etc., of research shall be held liable for research misconduct:

1. Act of fabricating, recording, or reporting research data or research material in violation of Paragraph (1), Article 6;
2. Act of manipulating a research material by arbitrarily changing research data, adding something thereto, or leaving it out in violation of Paragraph (2), Article 6; or
3. Act of using research outcome by any other person as if it were his/her own research outcome in violation of Paragraphs (2) or (3), Article 7.

Article 12 [Research Misbehavior] ① A researcher who has committed, not through serious negligence, an act falling under any of the subparagraphs of Article 22 in the entire course of research such as proposal/performance/report/presentation, etc., of a research shall be held liable for research misbehavior.

② A researcher who has committed, intentionally or through gross negligence, an act falling under any of the following subparagraphs shall be responsible for such research misbehavior:

1. Act of deriving an untrue research result by interpreting the research materials in an exaggerated, reduced, or distorted manner in violation of Subparagraph 3, Article 6;
2. Act of using research idea, research data, and sentences by another person without correct indication of its source or citation in violation of Subparagraph 3, Article 7 but which does not fall under Subparagraph 3, Article 11;
3. Act of heavily relying on other person's idea, research data, and sentences to the extent that may affect the originality of his/her own research in violation of Subparagraph 4, Article 7 (regardless of whether or not indication of its source or citation has been made);
4. Act of using his/her own research idea, research data, and sentences that have already been published as if they were presented for the first time in such research in violation of Paragraph (1), Article 8;
5. Act of relying upon his/her own research idea, research data, and sentences that have already been published to the extent that affects the originality of such research in violation of Paragraph (2), Article 8 (regardless of whether or not indication of its source or citation has been made);
6. Act of publishing all or part of his/her own theses or writings that have already been published in the same language or other languages without correct indication of its source or citation in violation of Article 9;

7. Act of including a researcher who has not made a direct contribution to research in the coauthors or intentionally excluding a researcher who has made a direct contribution to a research from the co-authors in violation of Paragraph (2) or (5), Article 10; or
8. Act of conniving, aiding, or concealing research misconducts specified in Article 11.

Article 13 [Judgment of Research Misconduct and Research Misbehavior] The committing of an act falling under research misconduct and research misbehavior respectively under Article 11 and Article 12 and the degree of violation shall be judged considering the characteristics of a major field of study and the opinions of the relevant academic field.

Chapter 3 Management of Research Material

Article 14 [Principle] Research data (referring to source materials such as material / process / result of experiment, observation / field investigation / survey result, etc.) and research materials (referring to research data and secondary material obtained from processing the research data) shall be clearly recorded as prescribed below so that other researchers may reproduce the same result under the same conditions. However, exception may be acknowledged according to the characteristics of a major field.

Article 15 [Recording of Research Data] ① Research data, as grounds certifying the originality of research and which are able to give legal protection to a research result shall be correctly recorded in a lab note.

② Since a lab note, as an aggregate of all information occurring in the laboratory, is an important tool for handing down knowledge in the laboratory and to be used by succeeding researchers as well as the researcher himself/herself, it shall be correctly prepared in accordance with the following guidelines:

1. A lab note, in principle, shall be prepared in writing using a durable writing tool and a bound note for the preservation of research data. It may be prepared in the form of electronic documents according to the characteristics of research. In such case, record certification function corresponding to a written lab note shall be supported; and
2. Research data shall be recorded together with the research date and serial number in order to be protected from counterfeiting or forgery. A correction mark shall be made in cases wherein the recorded contents are amended so that the original contents may be discerned. Research data such as a printout from an experiment instrument, etc., and which cannot be written down in a lab note shall be pasted to the note or kept in a separate safe place, with the place of safe-keeping recorded in

the lab note.

Article 16 【Preservation of Research Material and Lab Note】 ① The principal investigator shall assume responsibility for keeping and managing research materials and lab notes.

- ② Lab notes shall belong to the property of Seoul National University.
- ③ Research materials shall be preserved for the period deemed necessary for verification by the academic field (at least for five years).
- ④ Research materials requiring security shall be kept at a place not accessible to the general public, with an access password set up for computer files.
- ⑤ Any person who intentionally falsifies or destroys research materials or research data shall bear the consequence as prescribed by Article 7, Chapter 2.

Chapter 4 Conflict of Interests

Article 17 【Principle】 In cases wherein, regarding the planning of research, collection/analysis/interpretation of materials, publication, use of results, etc., conflict of interests prescribed by Article 18 occur -- or are likely to occur -- on the part of a researcher, a researcher shall manage such conflict of interests in accordance with Article 19 since fairness of research, safety of the human subject of research, and social trust in academic research might be impaired.

Article 18 【Contents of Conflict of Interests】 The term “conflict of interests” refers to cases that may have a negative effect on professional judgment or research performance due to any of the following causes:

1. Monetary conflict of interests: when caused by pecuniary advantage of a researcher related to research;
2. Conflict of interests in human relations: when caused by personal human relations such as personal acquaintance, influence by the institution where he/she belongs, personal conflict or research competition, etc.;
3. Intellectual conflict of interests: when caused by religious belief, world view, or moral conviction or theoretical conviction with respect to a certain kind or field of research;
4. Conflict of interests due to role conflicts: when roles such as education, services, and external activities as a member of the research institution where he/she belongs collide with research activities; or
5. Other conflict of interests: when caused by other reasons corresponding to Subparagraphs 1 ~ 4.

- Article 19 【Management of Conflict of Interests】** ① In cases wherein there is any actual or potential possibility of conflict of interests relating to research arising, a researcher shall do his/her best so that such conflict may not have a negative effect on research by ensuring transparency and accountability by disclosing such conflict to the public.
- ② A researcher shall specify in a research proposal matters such as support details of research expenses, supporters, institution where he/she belongs, and other grounds for causing conflict of interests under Article 18 and disclose such facts in an academic journal even when presenting research results. Furthermore, if necessary, the researcher shall notify the human subject of research thereof.
- ③ In cases wherein there is a possibility of a negative effect on research actually arising since the degree of conflict of interests is serious, a researcher shall suspend research without any delay or, if continuing the research, shall request supervision over the fairness of research to an expert group independent of such conflict of interests. To ensure that the fairness of research is not impaired by a co-worker who has conflict of interest, the principal investigator shall take an appropriate measure such as exclusion of such co-worker from a specific research stage.

Chapter 5 Ethics of Research on Human Subjects

- Article 20 【Principle】** ① A researcher of research on human subjects (including clinical test, biomedical science, behavioral science, etc.) shall uphold the human rights, health, and welfare of each human subject or research.
- ② The voluntary consent of a human subject of research shall be obtained after the purpose and procedure of research and expected risk, etc., have been sufficiently explained to a human subject of research. However, cases wherein prior permission from an official organization such as the Seoul National University Institutional Review Board (hereinafter referred to as “IRB”) has been obtained may be excluded.
- ③ The risk to human subjects of research shall be minimized, and research that seriously affects the health and welfare of a human subject of research shall not be performed.
- ④ A human subject of research belonging to the vulnerable social group shall be specially taken care of in relation to the consent-obtaining process or risks.
- ⑤ The privacy of each human subject of research shall be secured, and his/her personal information shall be protected.

- Article 21 【Review by IRB】** ① A human subject research project shall be commenced after the research proposal is submitted to and approved by the Seoul National University IRB.
- ② Even in the case of a research project that involves faculty, staff, or students belonging to Seoul National University as a subject, the provision of Paragraph (1)

shall apply.

- ③ The Seoul National University IRB shall make an independent deliberation and supervise the research process in accordance with an appropriate procedure.

Article 22 【Compliance with the Relevant Acts and Subordinate Statutes】 Regarding other matters, the relevant Acts and subordinate statutes such as Bioethics and Safety Act, etc., shall be observed.

Chapter 6 Ethics of Research on Animal Subjects

Article 23 【Principle】 A researcher of research on animal subjects shall respect the health and welfare of laboratory animals and perform the research scientifically and ethically by complying with the principles in the following subparagraphs:

1. Principle of replacement: A non-animal model or a lower form of animal, if possible, shall be used;
2. Principle of reduction: Various methods to reduce the population size of laboratory animals shall be utilized; and
3. Principle of refinement: The pain and anxiety of laboratory animals shall be removed or minimized.

Article 24 【Approval by the Seoul National University Institutional Animal Care and Use Committee】 An animal subject research project shall be commenced after the research proposal is submitted to and approved by the Seoul National University Institutional Animal Care and Use Committee.

Article 25 【Close of Research on Animal Subjects】 When research on animal subjects is closed, the following matters shall be observed:

1. An animal on which the experiment was completed shall be euthanized in a humane way; and
2. Carcasses of laboratory animals shall be stored as determined by the head of each laboratory animals facility and disposed of according to the Infectious Waste Disposal criteria under the Waste Control Act.

Article 26 【Compliance with the Relevant Acts and Subordinate Statutes】 As for other matters, the Animal Protection Act, Laboratory Animal Act, and relevant regulations of Seoul National University shall be observed.

Chapter 7 Safety Management of Research

Article 27 【Laboratory Safety Management】 ① A principal investigator shall do his/her

best efforts for laboratory safety management such as establishing a plan to prevent safety accident, providing researchers with information on safety, encouraging completion of a course in teaching safety education, etc. In cases wherein a safety accident occurs, a principal investigator shall report it without delay to university authorities and prepare related measures.

- ② Researchers shall, for laboratory safety, comply with the relevant Acts and subordinate statutes, standard, and regulations on the Seoul National University laboratory management and take safety education faithfully.
- ③ Seoul National University shall give assistance such as provision of opportunity to receive safety education so that researchers may do their best for laboratory safety management.

Article 28 【Biosafety Management】 ① A research project using biotic resources (referring to infectious substances that are expected to contain pathogens such as living modified organism/microorganism/or prion, etc., or are known to be a pathogen) shall be commenced after the research plan is submitted to and has been approved by the Seoul National University Institutional Biosafety Committee.

- ② A researcher using biotic resources shall report in advance the relevant research facilities to the competent government institution through the Institute of Environmental Protection & Safety of Seoul National University in accordance with the relevant Acts and subordinate statutes to obtain permission.
- ③ A researcher intending to import a living modified organism shall report it in advance to the competent government institution through the Seoul National University Institutional Biosafety Committee.
- ④ As for other matters, the relevant Acts and subordinate statutes such as the Transboundary Movement, etc., of Living Modified Organisms Act, etc., shall be observed.

Article 29 【Safety Control of Radiation and Chemicals】 ① In cases of purchasing / using / discarding radioactive materials, equipment embedding radioactive materials, and radiation generating devices, etc., a report on the relevant research facilities shall be made in advance to the competent government institution through the Institute of Environmental Protection & Safety of Seoul National University in accordance with relevant Acts and subordinate statutes, and permission shall be obtained.

- ② A researcher who deals with radiation shall, in order to prevent any radiation hazard to him/her, comply with the relevant regulations such as Seoul National University Radiation Safety Control Regulation, etc.
- ③ As for chemicals safety control, the relevant Acts and subordinate statutes such as the Framework Act on Fire Services and Toxic Chemicals Control Act, etc., shall be observed.
- ④ Inflammables shall, in principle, be stored in indoor storage, with a minimal amount

necessary for an experiment kept in a laboratory. All chemicals kept in a laboratory shall be classified and stored according to their chemical properties.

Chapter 8 Education on Research Ethics

Article 30 【Duties of Seoul National University】 ① Seoul National University shall educate affiliated researchers on research ethics in various ways in order to foster their sense of research ethics.

② Seoul National University shall prepare supporting measures such as securing instructors for education on research ethics and developing teaching materials for research ethics, etc.

Article 31 【Duties of Researchers】 ① All researchers shall have thorough knowledge of the contents of the Research Ethics Guidelines and shall comply with them.

② All researchers shall actively participate in the research ethics education provided by Seoul National University, and a principal investigator shall lead researchers and students under his/her control so that they participate in the education.

Article 32 【Contents of Education on Research Ethics】 The contents of research ethics education shall be based on these Research Ethics Guidelines; they shall consider the special characteristics by major field and contain concrete examples and methodology.

ADDENDA

Article 1 【Enforcement Date】 These Guidelines shall enter into force on the date of their promulgation.

Article 2 【Scope of Application】 As for research results presented before these Guidelines enter into force, the research ethics guidelines and standard of the relevant academic field at that time shall apply.