

Research Ethics Regulations of the Korean Society of Radiological Science

Enacted on January 1, 2008
Amended on April 3, 2010
Amended on January 1, 2018
Amended on February 1, 2020
Amended on February 1, 2023

Chapter 1. General Provisions

Article 1 (Purpose)

The purpose of these regulations is to ensure proper research conduct and to prevent misconduct among members of the Korean Society of Radiological Science (hereafter referred to as 'society'). These regulations are based on the ideology and principles of research ethics. Moreover, these regulations can be used to establish criteria to impartially verify whether or not research misconduct has occurred.

Article 2 (Applicable Subject)

These regulations apply to the members of the Korean Society of Radiological Science and persons who submit manuscripts (hereafter referred to as 'member').

Article 3 (Extent of Application)

Unless special regulations are stipulated in other laws, these regulations shall be applied to research ethics and credibility of a specific research area.

Chapter 2. Credibility and Social Responsibility of Research

Article 4 (Credibility of Research)

- ① A member shall conduct all research activities (research proposal, research implementation, report/presentation of research results, review/evaluation of research, etc.) honestly and sincerely.
- ② Research contents and their importance should be described objectively and accurately. Research results should not be deleted or added arbitrarily.
- ③ All research activities shall be conducted without prejudice or bias.

Article 5 (Responsibility of Recording, Storing, Reporting and Disclosing of Research Information)

- ① All research information shall be recorded, processed and stored carefully and precisely to allow checking and analysis/interpretation.
- ② A member shall use adequate and appropriate experimental designs and statistical techniques, and disclose them as necessary.

Article 6 (Social Contribution of Research Results)

A member shall try to promote social benefits and contribute to public good through research. As an expert, a member shall exert the best efforts while recognizing the effects of his/her own research to the community.

Article 7 (Cautions during Use of Research Results)

When research results are published and used, a member shall observe proper conduct with academic consciousness. A member shall not distort or exaggerate research results to enhance his/her reputation or to secure more research funds.

Article 8 (Obligation to Observe Relevant Laws)

A member shall honor intellectual property rights such as patent and copyrights, and observe relevant laws.

Chapter 3. Fairness of Relationship among Researchers

Article 9 (Joint Research)

When conducting a joint research with other researchers, a member shall recognize his/her role and fulfill obligations. Before the start of research, mutual agreement and understanding shall be established regarding the following matters: goals and expected results of research tasks; role of each researcher; method of collecting/storing/sharing data; authorship determination and order criteria; selection of chief researcher; intellectual property rights; and ownership issues.

Article 10 (Responsibility of Author)

- ① A corresponding author shall assume general responsibility for article data and authorship listing. Also, a corresponding author shall be responsible for the supervision of co-researchers' research activities.
- ② If an outside organization requests for proof regarding the degree of contribution, authors shall satisfy this request.

Article 11 (Corresponding Author)

- ① A corresponding author shall assume comprehensive responsibility for research results and verification.
- ② A corresponding author shall be responsible for verifying authorship order and co-author listing.

Article 12 (Authorship Determination Criteria)

- ① Authorship shall be determined according to the degree of academic/technical contribution to research contents or results. The degree of academic/technical contribution is shown below.
 1. Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work
 2. Drafting the work or revising it critically for important intellectual content
 3. Final approval of the version to be published

4. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved
- ② Individuals who have made significant contributions to the collaborative research may be acknowledged as co-researchers; nevertheless, the authors in the following instances are regarded unsuitable authors, and their research achievements can not be recognized.
 1. Ghost Author : Instances in which a certain author made a significant contribution in the study but was not named as an author when the results were announced
 2. Gift Author : In case of listing a researcher who is not qualified as an author
 3. Swap Author : When researchers exaggerate their accomplishments by adding the other person's study results in their own
 4. Theft Author : Adding well-known field researchers who did not participate in the research as authors without permission

Article 13 (Determination of Authorship Order)

The order of authorship shall be determined in a fair manner through a discussion among all authors and by determining the degree of contribution to research.

Article 14 (Display of Author's Affiliation)

When displaying the affiliation of an author, the affiliation at the time of conducting research activities (e.g., experiments, writing report/manuscript, etc.) shall be used in principle.

Article 15 (Ownership of Data and Research Outcome)

Upon starting the research proper, the chief researcher shall clarify the ownership of data, samples and research outcome used or created during the research process and the corresponding obligations of the researchers.

Article 16 (Sharing and Disclosing of Data)

The chief researcher can provide data and samples of a published research article to other researchers upon proper request from the researchers; he/she is also responsible for providing data and samples.

Article 17 (Extent of Chief Researcher's Responsibility)

- ① The chief researcher shall take responsibility for research and other related research matters.
- ② The chief researcher shall take responsibility for the credibility of researches conducted by all researchers.
- ③ The chief researcher shall consider risks that may occur from the misuse of research results while conducting research. The chief researcher shall take necessary measures to minimize such risks.
- ④ The corresponding author should follow the principles in the Helsinki Declaration(<https://www.wma.net>) if the submitted manuscript is for a human, and be approved by the Institutional review board(IRB) with subject consent form. In addition, animal study should be approved by the institutional animal care and use committee(IACUC).

Article 18 (Gender Innovation Policy)

Articles published in this journal must faithfully comply with the guidelines recommended by the Gender Innovation Policy (<http://gister.re.kr>). Authors should correctly describe the gender descriptors, i.e. sex and gender, in their research. In addition, they must include men and women in their research and analyze the results comparatively, and if they study a single gender, they must provide academic justification.

Chapter 4. Research Misconduct and Other Unethical Research Behavior

Article 19 (Citation Procedures and Principles)

- ① An author can cite a part of another person's writing to his/her own manuscript in the form of introduction, reference or comment; original text or interpretation of a source can also be used.
- ② An author shall list sources and literature references accurately. An author shall check all elements (author name, volume/issue No. of journal, page, year of publication, etc.) of citation of the original source without relying on a secondary source. Under unavoidable circumstances, a secondary source can be cited after disclosing the fact in a secondary source citation.
- ③ An author shall cite references using reasonable procedures based on the principle of good faith to be able to clearly distinguish the author's work from cited materials.
- ④ An author shall cite a published writing. If academic data were obtained through article/research proposal, judging process, or private contact, an author must obtain an approval from the researcher who owns the data before making citation.
- ⑤ When an author introduces to his writing an idea or interpretation of idea that is included in another person's published article, its source must be stated or credited.
- ⑥ In case of heavily citing a single source, an author shall clarify and distinguish his/her own ideas from ideas cited from references so that readers can clearly ascribe the proper sources.
- ⑦ An author shall include important published literatures that had great impact on the direction of author's research or that can help readers understand research details in references, except in cases where researchers know them theoretically/empirically.
- ⑧ An author shall avoid citing a journal article in the literature reference list even though an abstract in the preceding study review was used. Also, an author shall avoid using a draft version or preliminary version published in proceedings of a conference while citing a published version of an article.

Article 20 (Citation Procedures of General Knowledge)

- ① An author shall disclose the source when another person's idea or factual information was used in the manuscript. However, if an idea is common knowledge or data are already known to readers, an exception can be made.

- ② If there is any doubt whether or not a concept or fact is common knowledge, an author shall cite its source.

Article 21 (Definition of Research Misconduct)

“Research misconduct” means unethical behavior such as fabrication/manipulation of data, plagiarism, unfair article authorship listing, and redundant publication that occur during the entire research process (research proposal, research implementation, report and presentation of research results, research review/evaluation, etc.).

1. “Fabrication” is a conduct that produces non-existing data or research results.
2. “Manipulation” is a conduct that distorts research contents or results by manipulating research materials/equipment/process by human intervention or changing/deleting data at will. (Here, “deleting” means selecting and using only favorable data by intentionally excluding data that can hinder obtaining accurate research results.)
3. “Plagiarism” is a conduct that uses other person’s writing or ideas without proper approval or citation; these include research concept or idea, research results, hypothesis, or theory protected by copyright laws.
4. “Unfair article authorship listing” is a conduct that does not give authorship to a person who made academic contribution to research contents or results without proper reasons. May also be a conduct that gives authorship to a person who did not make any academic contribution.
5. “Redundant publication” is a conduct that publishes an article that is identical or nearly identical in content to his/her own published article without mentioning the existence of previous publication to editors or readers.

Article 22 (Idea Plagiarism)

- ① “Idea plagiarism” is a conduct that uses other person’s ideas (description, theory, conclusion, hypothesis, metaphor, etc.) partially/entirely or after superficial modification without crediting the original creator/source.
- ② An author has ethical obligation to disclose a source of ideas in the form of footnote or reference citation.
- ③ An author shall not use other person’s ideas obtained through peer review of other person’s research proposal and submitted manuscript without proper citation of sources.

Article 23 (Text Plagiarism)

“Text Plagiarism” is an act of copying a part of text from other person’s writings without disclosing author information.

Article 24 (Mosaic Plagiarism)

“Mosaic Plagiarism” is an act of combining a part of texts, adding/inserting words, or using synonymous words from other person’s writings without disclosing the original author or source.

Article 25 (Redundant Publication)

- ① If the main contents of an article are identical to those of his/her own published article, it shall be considered as redundant publication even if the later publication uses texts that show a slightly different point of view or includes a slightly different analysis from

published identical data.

- ② When publishing a previously published article for readers who are aware of this publication, an author shall obtain agreement from editors of both journals regarding redundant publication. An author shall disclose the fact of redundant publication to journal readers. The same rule shall apply in case of an article published in one language that is published again in another journal after translation into a different language.
- ③ Submitting the same article to different journals is prohibited. The proper way is to submit the same article to another journal after its publication status has been decided.

Article 26 (Cautions regarding Research Misconduct and Copyright Infringement)

- ① When an article is published in a journal, copyrights are transferred to the editor of a journal as a general rule. Therefore, when an author publishes or reuses his/her published article, the author should be aware of copyright infringement.
- ② An author should be aware that redundant publication may cause copyright infringement.
- ③ In case of citing texts heavily from a copyright protected source, an author should be aware that copyright infringement can occur even if citation was properly made or texts were properly quoted.

Article 27 (Unethical Research Misconduct during Judging Process)

A judging committee member shall not use specific information obtained during the article judging process in a research he/she is directly/indirectly involved in without permission from the original author of an article.

Article 28 (Unethical Research Conduct)

The following conduct shall be considered as inappropriate research conduct.

1. Falsely stating and reporting research achievements and results.
2. Presenting joint research results at a conference or seminar without disclosing the fact of joint research.
3. Conduct that damages reputation (e.g., personal attack) during the judging process of a submitted article.
4. Assigning judging duty to a third person after being requested to judge an article.
5. Judging/evaluating an article without reading it.
6. Research that can harm life, health and human rights of a person.

Article 29 (Inappropriate Writing Conduct)

The following conduct shall be considered as inappropriate writing conduct.

1. Inappropriate source citation
2. Distortion of reference literature
3. Relying on abstract while citing a published article
4. Citing a literature that has not been not read or understood
5. Disclosing only a part of a source while using that single source heavily
6. Text recycling
7. Publishing several articles using research results meant to be published as a single

article to exaggerate research achievement

Article 30 (Prohibition of Reference Literature Distortion)

- ① Only literatures directly related to contents of an article shall be included as references. Including literature whose relevance is in question, in order to manipulate the impact factor of a journal article or to increase the chances of article publication, is prohibited.
- ② Including only literatures favorable to the author's data or theory is prohibited. Citing references that may contradict the author's viewpoint is an ethical obligation.

Article 31 (Research misconduct by co-authors with related parties)

- ① Research misconduct by co-authors with related parties (hereinafter referred to as related parties) is the act of omitting minors (persons under the age of 19) or family members (blood relatives within the fourth degree of consanguinity, such as spouses and children) and gaining public or private benefits from the research (entrance examination and advancement, recruitment and promotion, etc).
- ② In order to prevent research misconduct by co-authors with related parties, relevant personal information must be provided through the 'Author's Checklist' and 'Publication Submission' (indication of author information) submitted when submitting the article.

Chapter 5. Conflict of Interest

Article 32 (Conflict Issue Management Responsibility)

- ① Conflict of interest refers to cases that may have a negative role on fair professional judgment or research performance due to any of the following reasons.
 1. Financial Conflict of Interest : In case of financial interest of the researcher involved in the research
 2. Human Relational Conflicts of Interest : Cases caused by personal relationships such as personal friendship, influence of affiliated institution, or personal conflict or research competition
 3. Intellectual Conflict of Interest : Cases resulting from religious beliefs, world view, moral beliefs, or theoretical beliefs related to a particular species or field of study
 4. Conflict of interest by role conflict : In case the role of a member of an affiliated institution, such as education, service, external activities, etc., is caused by conflict with research activities
- ② If a conflict of interest occurs while proposing, conducting, reporting and judging research, a researcher or a judging committee member shall be responsible for managing or resolving the issue so that it will not affect the research or judging process.
 1. Protection of a whistle blower
 2. Conflict of interest
 3. Efficient monitoring system
 4. Fair treatment of public official
 5. Fair Management of research funds

Article 33 (Cautions during the Article Judging Process)

- ① The judging process of a research article shall be conducted fairly and objectively. The judging due date and confidentiality shall be strictly observed.
- ② The dignity and reputation of an author shall not be degraded.

Chapter 6. Verification of Research Credibility

Article 34 (Responsible Party for Credibility Verification)

In case misconduct occurs regarding an article published in the society journal (whether discovered or reported), the chief researcher shall be responsible for verification of the misconduct.

Article 35 (Principle of Credibility Verification)

- ① If the journal editor-in-chief (hereafter referred to as 'editor-in-chief') requests a chief researcher to submit data to verify misconduct discovered in a submitted article, the chief researcher shall submit relevant verification data to the editor-in-chief.
- ② The chief researcher can request the editor-in-chief to open a hearing.
- ③ The editor-in-chief can request the research ethics committee to conduct a review based on submitted data, opinions and investigated data.

Chapter 7. Establishment and Operation of Research Ethics Committee

Article 36 (Functions)

The research ethics committee in the society reviews the following items and makes corresponding decisions.

1. Planning and training regarding establishment of research ethics
2. Verification and investigation of research misconduct and violation of research ethics
3. Decision, follow-up measures and disciplinary actions regarding research misconduct and violation of research ethics
4. Other matters brought up by the committee chairperson

Article 37 (Committee Formation)

- ① The committee consists of one chairperson, one secretary and five committee members.
- ② The society chairperson appoints the committee chairperson, and the committee chairperson appoints the secretary and committee members.
- ③ The chairperson represents the committee and takes full control of tasks.
- ④ The secretary assists the chairperson and plans/carries out the tasks.

Article 38 (Meeting)

- ① A meeting shall be held when the chairperson thinks it is necessary. The chairperson shall head the meeting.
- ② A meeting can be conducted with the attendance of majority, and decision can be made with votes from over 1/2 of attendees.
- ③ If approved by the committee, concerned parties can attend a meeting and give opinions to the committee.

Article 39 (Authority and Responsibility of Committee)

- ① During the investigation of research misconduct and violation of research ethics, the committee can request an informant, the person under investigation, and witnesses for attendance and data submission.
- ② Under any circumstances, the identity of informant and witness regarding research misconduct and violation of research ethics shall not be disclosed. The dignity and reputation of a person under investigation shall not be degraded until the completion of verification for research misconduct and violation of research ethics.
- ③ All matters that require decision by the committee shall be kept confidential.
- ④ The committee can apply disciplinary measures to a person who commits research misconduct and violates research ethics. These sanctions may include warning, cancellation of article submission to the journal, cancellation of article publication, and suspension of article submission.

Chapter 8. Policies for investigators

Article 40 (Data De-Identification)

- ① The data acquired from the studies should be de-identified before publication or sharing with other investigators not to be able to be identified by individuals, organizations, and businesses.
- ② Unless the study participants agree to publish without de-identification, personal information should not be revealed, which may be violated against the personal information protection act.

Article 41 (Data Sharing and Reproduction)

- ① Even if the consent on sharing study data is offered, the investigator should determine it to protect the benefit of the study subjects. Once any specific risk which was not considered by the participant is confirmed, data sharing should be held, if the risk is significant.
- ② Authors should reveal the citations of other investigator(s)' study performances including processes and results clearly, and check these, and the reproduced data such as figures, tables, other values, and so on should be followed with written consent of the related investigator(s).

Article 42 (Discussion and Amendment after Publication)

- ① Articles published in journals for reasons such as data errors (errors and omissions in tables, figures, and simple phrases, simple authorship, etc.) and violations of research publication ethics (plagiarism, data falsification, duplicate publication, copyright violation, and research misconduct involving related parties) may be revised or withdrawn after deliberation by the Research Ethics Committee.
- ② When research misconduct involving a related party is confirmed, the retraction notice shall be posted and all related organizations (schools related to admission and advancement, research-related organizations, etc.) and the Korea Research Foundation shall be notified of the related party's research misconduct.
- ③ In case errors or mistakes on the published articles are found and confirmed, they will be announced to the readers by the ways including amendment article, cancellation and withdrawal article, expression of editor's concern, announcement, and so on. The cases should include the whole bibliographic information on the amended article, explanation and correction of errors (announcement and appreciation on the person who assists to find the errors), citation of the amended article on the reference list, citation of the original article, and so on.
- ④ If the chief editor expresses the withdrawal and concern on the article, it would be followed by COPE process provided by <http://publicationethics.org/resources/flowcharts>. If the amendment of the article is required, it would be followed by the ICMJE recommendations of amendment, withdrawal, republication, and version control provided by <http://www.icmje.org/recommendations/browse/publishing-and-editorial-issues/corrections-and-version>.

Article 43 (Handling of Complaints and Appeals after Publication)

With the goals to protect authors, reviewers, editors, and publishers, the policy of 'Radiation Technology Science' shall follow the guideline of the publication ethics committee provided by <https://Publicationethics.org/appeals> on the handling of complaints and appeals if any of the followings is not related.

1. Subject of complaint and appeal: Article applicants, authors, reviewers, and readers can register the complaints and appeals if the cases of unfair competition, intellectual property right issue, data theft, defamation, legal lawsuits, and so on are occurred. In case of complaint or appeal, the objective data should be provided including the answers to 5W1H (who, when, where, what, why, and how).
2. Those who are responsible for solving and handling complaints and appeals: Editors and editorial committee are responsible for them, and if necessary, legal adviser or ethics committee member can participate in the decision making process.
3. Handling outcomes: They are varied by the types and degree of misconduct, and the outcomes of the handling will be followed by the guideline of COPE.

Chapter 9. Supplementary Regulations

Article 44 (Amending of Regulations)

These regulations can be amended through review and discussion by the board of the Korean Society of Radiological Science.

[Supplementary Provisions]

1. Items that are not stipulated in these regulations shall follow conventional rules.
2. These regulations shall be enforced starting from April 3, 2010.
3. These regulations shall be enforced starting from January 1, 2018.
4. These regulations shall be enforced starting from February 1, 2020.
5. These regulations shall be enforced starting from February 1, 2023.