

A Guidebook of Research Integrity For International Scholars

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A Guidebook of Research Integrity For International Scholars

1. Introduction
2. Korean Legal System of Research Ethics
3. Scope of Research Integrity and Research Misconduct
4. Verification and Investigation of Research Misconduct
5. Types of Research Misconduct

01

Introduction

- This guidebook aims to foster research integrity and to prevent research misconduct for International researchers in Korea.
- It introduces Korea's legislation system on research ethics and explains the scope and types of research misconduct, and the investigation of research misconduct.

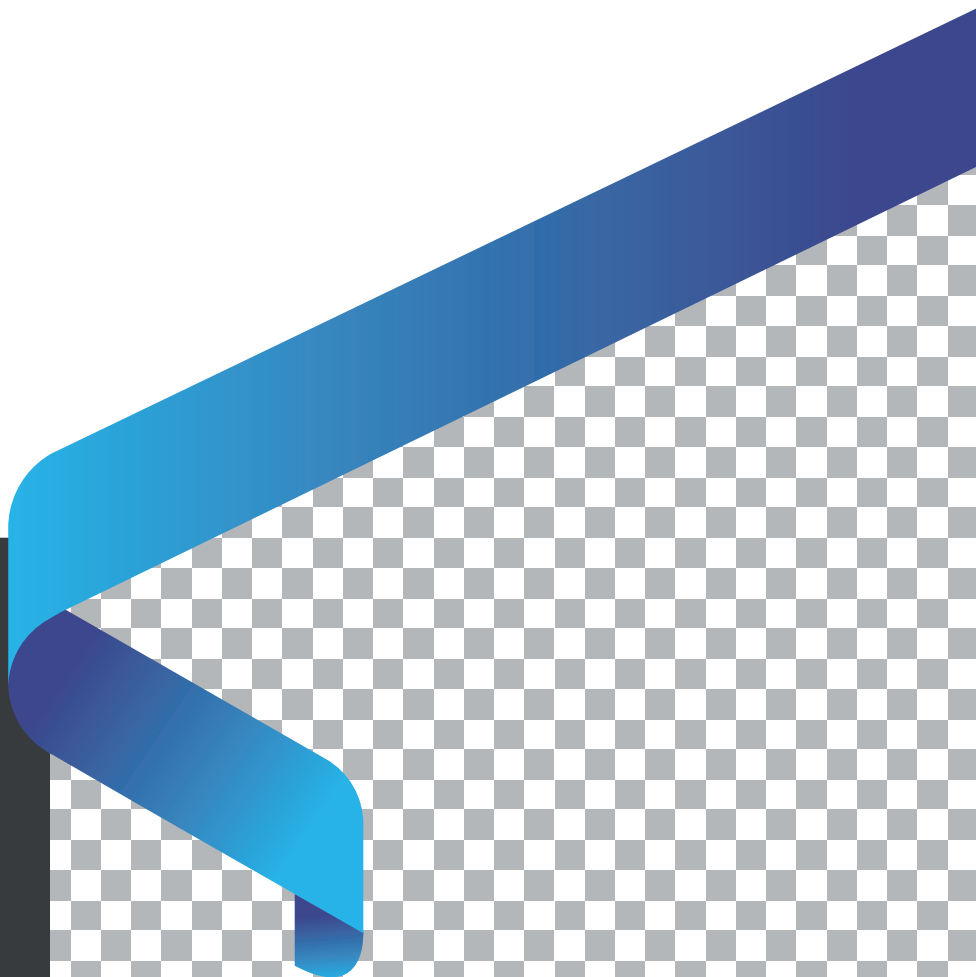


This guidebook is designed to introduce research integrity to International researchers in Korea.

The main contents of the "A Guidebook of Research Integrity For International Scholars" are written based on [Directive of the Upholding Research Ethics] by the Ministry of Education, other related regulations, etc.

- Chapter 2 of this guidebook introduces laws and regulations related to research ethics prescribed in Korea. Since universities, research institutes, and academic organizations can autonomously establish their own research ethics regulations based on these laws, each institution's research ethics regulations might be different from each other. Therefore, researchers must be familiar and comply not only with the relevant laws but also the regulations on research ethics of their affiliated institutions.
- Chapter 3 of this guidebook elaborates the concept of research ethics and research integrity, the roles and responsibilities of researchers and research institutes, and the scope of research misconduct.
- Chapter 4 of this guidebook introduces the procedures and regulations which must be performed during the investigation of research misconduct. Also, it deals with the protection of right and responsibilities of the complainant, the respondent, investigators and witnesses.
- Chapter 5 of this guidebook explains the scope and concept of research misconduct stipulated in Korea in depth, and suggests some tips which can help prevent research misconduct so that researchers can conduct responsible research.

- The appendix of this guidebook has translated [Directive for the Upholding Research Ethics], which is an official instruction of the Ministry of Education. However, due to the limitations of translation, the specific interpretation of the guidebook may not be clearly delivered.
- The Korean regulations and laws covered or introduced in this guidebook can be revised if necessary, so when referring to the details of the regulations, it is necessary to verify whether it has been revised and also the content of the revision.
- We hope that this guidebook will help International scholars review their own research activities and demonstrate their research capabilities.



02

Korean Legal System of Research Ethics

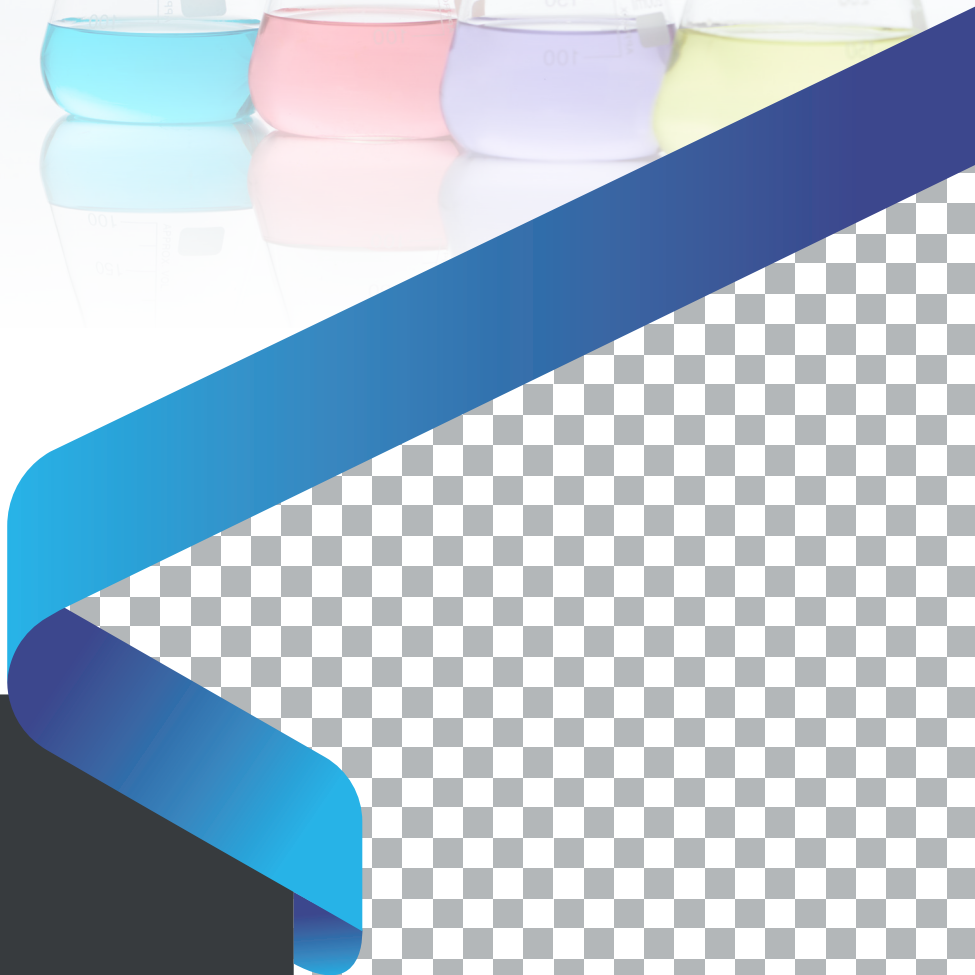
- Korean legal system of research ethics related to research integrity is in order of; Laws > Presidential Decree > Ministry Decree/Guidebooks > Administrative Regulations
 - Subordinate statutes shall not violate higher statutes.

Classification	Relevant Laws and Regulations	Competent Department
Laws	Sciences Promotion Act National R&D Innovation Act	The Ministry of Education The Ministry of Science and ICT

Classification	Relevant Laws and Regulations	Competent Department
Presidential Decree	Enforcement Decree of The Sciences Promotion Act Enforcement Decree of the National R&D Innovation Act	The Ministry of Education The Ministry of Science and ICT
Ministry Decree/ Guidebooks	Enforcement Regulation of the National R&D Innovation Act	The Ministry of Science and ICT
Administrative Regulations	Directive for the Upholding Research Ethics	The Ministry of Education

- **The Ministry of Education** : The Ministry of Education stipulates various matters concerning fostering research integrity, investigation on allegations of research misconduct by [Sciences Promotion Act] Article 15, [Enforcement Decree of the Sciences Promotion Act] from Article 15 to 17 and [Directive for the Upholding Research Ethics].
- **The Ministry of Science and ICT** : [National R&D Innovation Act] from Article 31 to 35, [Enforcement Decree of the National R&D Innovation Act] from Article 56 to 65, [Enforcement Regulation of the National R&D Innovation Act] prescribes various matters concerning fostering research integrity and investigation on research misconduct.

- **Each institution's own regulations** : Universities, research institutes, academic organizations and others can have their own regulations to promote research integrity, and these regulations would be enacted based on relevant laws such as [Sciences Promotion Act] and [National R&D Innovation Act].
 - Since this guidebook does not deal with each university, research institute, and academic organization's regulations, researchers should understand and follow regulations related to research ethics not only introduced in this guidebook but also the regulations of their affiliated institutions.

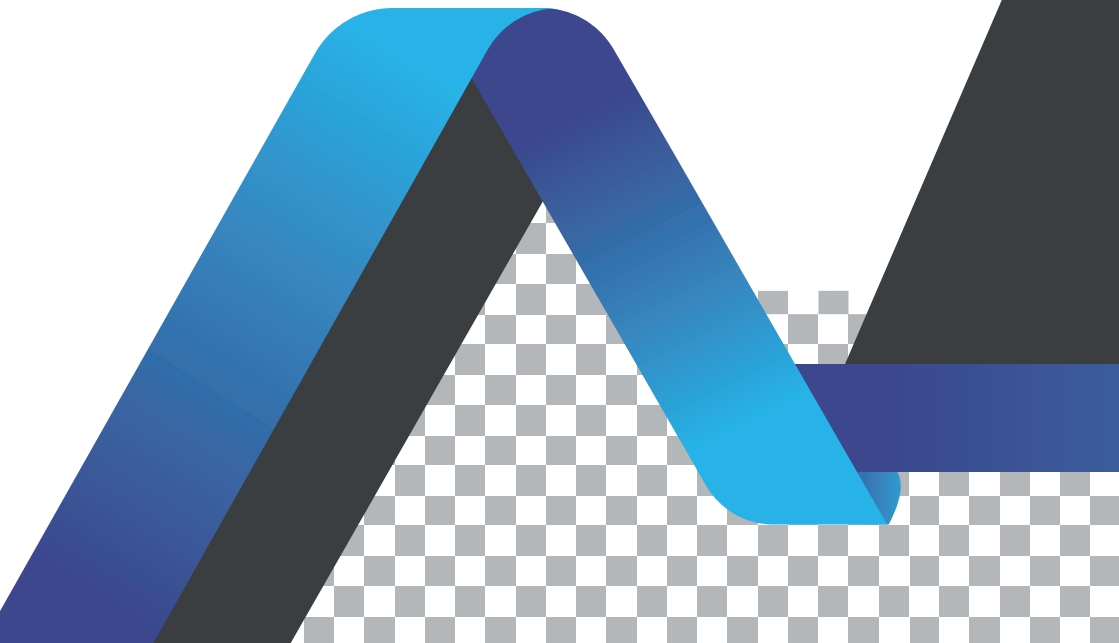


03

Scope of Research Integrity and Research Misconduct

1. The concepts of research ethics and integrity

- **Research ethics means** values or norms that researchers should know and practice in the entire process of conducting research.
- **Research integrity means** that intentional misconduct such as fabrication, falsification, and plagiarism is not involved in the entire process of research (research proposal, research conduct, research report, and peer-review, etc.) and that objectivity, honesty, stewardship, accountability, fairness and openness are secured.




2. Roles and responsibilities of researchers and research institutes*

Classification	Researchers	Research Institutes
Protecting human subjects	<ul style="list-style-type: none"> • Respect human subject's rights and treat them fairly • Maintain confidentiality of the human subject of research 	<ul style="list-style-type: none"> • Create a rational and autonomous research environment and culture so that researchers can devote themselves to research and comply with research ethics • Enact their regulation to foster research ethics
Conducting honest and transparent research	<ul style="list-style-type: none"> • Conduct honest and transparent research based on facts • Upholding an academic conscience as a professional when providing his / her expert knowledge to society 	<ul style="list-style-type: none"> • Support research to produce excellent R&D results
Transparent research management	<ul style="list-style-type: none"> • Acknowledging and respecting the achievement of prior researchers by properly stating (citing) the sources • Uphold ethical responsibilities in the process of making research agreement, receiving and executing research grants • Indicate all research-related conflict of interests in the research publication 	<ul style="list-style-type: none"> • Use and manage R&D expenses and report the details of R&D expenses to the funding agency
Honest research report	<ul style="list-style-type: none"> • Enhance the credibility of the research by clearly stating the researcher's affiliation and position (author information) 	<ul style="list-style-type: none"> • Check and manage author information of research results
Education on research ethics	<ul style="list-style-type: none"> • Participate in regular education on research ethics 	<ul style="list-style-type: none"> • Provide education on research ethics regularly
Investigation of research misconduct	<ul style="list-style-type: none"> • Participate earnestly in the alleged research misconduct investigation process of the investigation committee 	<ul style="list-style-type: none"> • Investigation of the allegations of research misconduct

※ Source : Article 5 and 6 of [Directive for the Upholding Research Ethics] (The Ministry of Education) and Article 6, 7, and 13 of the [National R&D Innovation Act]

3. Scope of research misconduct

(1) Korea

- According to Article 12 of the [Directive for the Upholding Research Ethics] (The Ministry of Education), research misconduct refers to Fabrication, Falsification, Plagiarism, Illegitimate Authorship, Unjustified Duplication, Interference with the investigation on research misconduct, ect.
 - **(Fabrication)** It means making up research materials, data or output and recording or reporting them
 - **(Falsification)** It means manipulating research materials, equipment and processes, changing and/or omitting data and results such that the research is not accurately represented in the research record.
 - **(Plagiarism)** It means the appropriation of another person's ideas, processes, results or words without giving appropriate credit and presenting the creation as one's own to others.
 - **(Illegitimate authorship)** It means removing name(s) who made contributions to the research or a manuscript without justifiable reasons. It means also unjustly naming other authors who have made little or no contributions to the research or a manuscript due to respect and appreciation.
- 

- **(Unjustified duplication)** It means obtaining unfair advantages by publishing a work that is identical or substantially similar to his /her previous research outputs without giving appropriate credit.
- **(Interference with the investigation on research misconduct)** It means intentionally interfering with the investigation of research misconduct or inflicting harm on the complainant.
- **(Deviant practices)** Other practices that are seriously deviated from those that are commonly accepted within each academic field.

<Scope of research misconduct in Korea>

Classification	Directive of the Upholding Research Ethics	National R&D Innovation Act and Enforcement Decree of the above Act
Fabrication	○	○
Falsification	○	○
Plagiarism	○	○*
Illegitimate Authorship	○	○
Unjustified Duplication*	○	
Interference with the Investigation	○	○
Deviant Practices	○	

* [The National R&D Innovation Act] and the [Enforcement Decree of the above Act] do not separately stipulate "Unjustified Duplication" yet plagiarism includes self-plagiarism and unjustified duplicate publication.

[2] Comparison between domestic and international research misconduct

- The scope of research misconduct in Korea is wider than that of some leading countries in research ethics.

<Scope of research misconduct in some leading countries in research ethics>

Classification	South Korea	The United States	The United Kingdom	Germany	Canada	Australia
Fabrication	○	○	○	○	○	○
Falsification	○	○	○	○	○	○
Plagiarism	○	○	○	○	○	○
Illegitimate Authorship	○			○	○	○
Unjustified Duplication	○				○	○
Interference with the Investigation	○				○	
Deviant Practices	○					



Reference

[Bioethics And Safety Act] From Article 64 to 68

Article 64 (Penalty Provisions)

- (1) Any person who implants a somatic-cell cloning embryo to a womb, maintains the state of implantation, bears a child, in violation of Article 20 (1), shall be punished by imprisonment with labor for not more than ten years.
- (2) Any person who attempts to commit a crime specified in paragraph (1) shall also be punished.

Article 65 (Penalty Provisions)

- (1) Any person who implants a human embryo into an animal womb or implants an animal embryo into a human womb, in violation of Article 21 (1), or any person who implants a thing produced from an activity referred to in any subparagraph of Article 21 (2) into a human or animal womb, in violation of Article 21 (3), shall be punished by imprisonment with labor for not more than five years.
- (2) Any person who attempts to commit a crime specified in paragraph (1) shall also be punished.

Article 66 (Penalty Provisions)

- (1) Any of the following persons shall be punished by imprisonment with labor for not more than three years:
 1. A person who solicits another person to implant a somatic-cell cloning embryo into a womb or to keep such embryo implanted or to bear a child therefrom or who acts as a broker for such activity, in violation of Article 20 (2);
 2. A person who conducts an activity specified in any subparagraph of Article 21 (2);
 3. A person who produces an embryo for any purpose other than pregnancy, in violation of Article 23 (1);
 4. A person who provides or uses an embryo, ovum, or spermatozoon for money, an interest in property, or any other consideration, who solicits another person to provide or use an embryo, ovum, or spermatozoon for such consideration, or who acts as a broker for providing or using an embryo, ovum, or spermatozoon, in violation of Article 23 (3);
 5. A person who engages in somatic-cell nuclear transplantation or parthenogenesis for any purpose other than research on a therapy for a rare or incurable disease, in violation of Article 31 (1);
 6. A person who divulges confidential information or who uses confidential information without authorization, in violation of Article 63.
- (2) Any person who uses a residual embryo, in violation of Article 29 (1), shall be punished by imprisonment with labor for not more than three years or by a fine not exceeding 50 million won.



(3) Any person who attempts to commit a crime specified in paragraph (1) or (2) shall also be punished.

Article 67 (Penalty Provisions)

(1) Any of the following persons shall be punished by imprisonment with labor for not more than two years or by a fine not exceeding 30 million won:

1. A person who conducts an activity referred to in any subparagraph of Article 23 (2) in producing an embryo;
2. A person who extracts ova or spermatozoa without written consent, in violation of Article 24 (1);
3. A person who to examine the health of a an ova donor, in violation of Article 27 (1), or who extracts ova in violation of Article 27 (2) or (3);
4. A person who discriminates against another person on the ground of genetic information, who compels another person to undergo a genetic test or to submit the results of a genetic test, or who leaves genetic information in records provided to any person other than the patient, in violation of Article 46 (1) through (3);
5. A person who conducts research on a gene therapy or practices a gene therapy, in violation of Article 47 (1) through (3);
6. A person who conducts a genetic test, in violation of Article 50 (1) through (3);
7. A person who fails to comply with an order issued for discarding or improvement under Article 55 (2). Any person who fails to transfer embryos or reproductive cells, in violation of Article 22 (6), shall be punished by imprisonment with labor for not more than two years or by a fine not exceeding ten million won.

Article 68 (Penalty Provisions)

Any of the following persons shall be punished by imprisonment with labor for not more than one year or by a fine not exceeding 20 million won:

1. A person who extracts and preserves ova or spermatozoa or produces embryos through fertilization without designation, in violation of Article 22 (1) through (3);
2. A person who fails to discard embryos, in violation of Article 25 (3) (including cases to which the aforesaid paragraph shall apply mutatis mutandis pursuant to Article 32 (2));

3. A person who provides residual embryos or ova for consideration, in violation of Article 26 (1);
 4. A person who fails to report relevant details to the Minister of Health and Welfare, in violation of Article 26 (3);
 5. A person who conducts research on residual embryos without registering his/her establishment as an embryo research institute, in violation of Article 29 (2);
 6. A person who conducts research on embryos without obtaining approval of the relevant plan for research on embryos, in violation of Article 30 (1) (including cases to which the aforesaid paragraph shall apply mutatis mutandis pursuant to Article 31 (5));
 7. A person who produces, or conducts research on, somatic-cell cloning embryos without registering his/her establishment with the Minister of Health and Welfare, in violation of Article 31 (3);
 8. A person who establishes a human material bank without permission, in violation of Article 41 (1);
 9. A person who directly extracts a human material, or requests another person to extract a human material, without written consent, in violation of Article 42 (1);
 10. A person who makes a misrepresentation or an exaggerated advertisement regarding genetic tests, in violation of Article 50 (4);
 11. A person who extracts a material to be used for a genetic test without written consent to the genetic test, in violation of Article 51 (1), (2), or (4), or a person who requests a genetic testing institution to conduct a genetic test without presenting written consent or without taking measures for protecting personal information, in violation of Article 51 (3).
- Under [National R&D Innovation Act], it not only defines the common research misconduct but also the expanded “misconduct”, and regulates it as shown below.
 - [The National R&D Innovation Act]’s “misconduct” is not included in the Ministry of Education’s [Guidebooks for Securing Research Ethics], but researchers conducting national R&D projects must prevent in the same way as research misconduct.





Reference

Misconduct under [National R&D Innovation Act]

- Under [National R&D Innovation Act], it not only defines the common research misconduct but also the expanded “misconduct”, and regulates it as shown below.
- [The National R&D Innovation Act]’s “misconduct” is not included in the Ministry of Education’s [Directive for the Upholding Research Ethics], but researchers conducting national R&D projects must prevent in the same way as research misconduct.

Article 31 (Prohibition of Misconduct in Relation to National Research and Development Programs)

(1) In order to ensure research ethics, researchers and research and development institutes shall not commit any misconduct related to national research and development programs (hereinafter referred to as “misconduct”) as described in any of the following subparagraphs, while engaging in national research and development activities:

1. Fabricating, falsifying, or plagiarizing research and development data or research and development outcomes, or indicating a wrong name as the author thereof;
2. Violating the purpose of use of research and development expenses under Article 13 (3) or the standards for use of research and development expenses under Article 13 (4);
3. Owning research and development outcomes, or allowing a third party to own them, in violation of Article 16 (1) through (3);
4. Violating security measures under Article 21 (1) or divulging or leaking security items of a research and development project categorized as a classified task under Article 21 (2);

5. Applying for or performing a research and development project by fraud or other improper means;
 6. Other acts prescribed by Presidential Decree that impair the soundness of national research and development activities.
- (2) If the head of a research and development institute discovers that any of its affiliated researchers or research support personnel has committed misconduct, he or she shall inspect such misconduct and take necessary measures, and then report such fact to the head of the competent central administrative agency.
- (3) In any of the following cases, the head of the competent central administrative agency may make a necessary investigation. In such cases, if the number of the competent central administrative agencies is more than one, the investigation may be conducted jointly:
1. Where it is impossible for the research and development institute to independently inspect misconduct and take measures under paragraph (2);
 2. Where deemed that the reasonableness and validity of the report made under paragraph (2) are doubtful;
 3. Other cases prescribed by Presidential Decree that are deemed necessary to secure objectivity and fairness in the investigation.
- (4) A research and development institute shall provide its affiliated researchers and research support personnel with support necessary for securing their research ethics.
- (5) Detailed standards for misconduct, the details of and procedures for inspections of, measures against, and reporting on misconduct under paragraph (2), and the details of and procedures for investigations under paragraph (3) shall be prescribed by Presidential Decree.



04

Verification and Investigation of Research Misconduct

1. Verification Procedure

File an allegation report ⇒ Inquiry (Preliminary assessment) ⇒ Decision on whether to conduct the investigation or not ⇒ Notify the people involved ⇒ Investigation ⇒ Judgement ⇒ Notify the people involved ⇒ File an appeal (objection) ⇒ (re-investigation) ⇒ Final decision (Findings) ⇒ Take disciplinary measure and report to the higher institution

	Stage	File an allegation report
	Content	File the allegation either by name or anonymously, verbally, in writing, by telephone or e-mail, etc.
1	Note	<p>(Protecting the complainant's rights)</p> <ul style="list-style-type: none"> • There should be no disadvantage or discrimination due to reports. • Guarantee of anonymity • Guarantee the rights to know the procedures and schedules, etc. <p>(Anonymous report)</p> <ul style="list-style-type: none"> • If there is clear evidence (including the name of researcher, the title of the paper, and the title of the research, specific research misconduct), it can be received in the form of documents or by e-mail.

2	Stage	Inquiry
	Content	<ul style="list-style-type: none"> • Commencement within 30 days from the date of receipt of the allegation. • A step of determining whether an official investigation is necessary.
3	Stage	Notify related people
	Content	<ul style="list-style-type: none"> • If the investigation is unnecessary, notification of the decision to the complainant or the respondent of the investigation should be made. • If the main investigation is necessary, organizing an investigation committee and scheduling for the main investigation should be carried out after notifying the decision to the complainant and the respondent.
	Note	<p>(Protecting the complainant's rights)</p> <ul style="list-style-type: none"> • The complainant may make a recusal request against the investigation committee members.
4	Stage	Investigation
	Content	<ul style="list-style-type: none"> • As this main investigation is a procedure to ascertain whether the research misconduct has been made, the investigation committee should comprehensively investigate the seriousness of the action, the chances of intentionality and repetition of the act, the circumstances, and the roles of the co-researchers, etc.
	Note	<p>(Composition of the investigation committee)</p> <ul style="list-style-type: none"> • The investigation committee shall be comprised of more than 5 people, among them, more than 50% shall be experts in the relevant research field, and more than 30% are from external institutes. • Any people related with conflicts of interests are excluded from the investigation committee. <p>(Protecting the rights of the respondent)</p> <ul style="list-style-type: none"> • Do not infringe the honor or the right of the respondent during the investigation process. • Guarantee the rights to know the procedures and schedules, etc. • Ensure the opportunities to make statements of opinion, etc. <p>(The authority of the investigation committee)</p> <ul style="list-style-type: none"> • Request the complainant, the respondent, the witness, and the person for reference to attend the committee to explain their opinions. • Request for submission of evidences and opinions and take measures to preserve the evidence. • Sanctions against those involved in research misconduct.

	Stage	Judgement
5	Content	<ul style="list-style-type: none"> The head of the relevant institute confirms the results of the investigation and notifies the complainant and the respondent in writing.
	Note	<ul style="list-style-type: none"> All procedures from the commencement of the preliminary investigation to the judgment must be completed within 6 months as a general rule If necessary, the investigation period can be extended with the reason being notified to the complainant, the respondent, the relevant institutes, etc.
	Stage	Notification to the people involved
6	Content	<ul style="list-style-type: none"> The results of the judgment are notified in writing to the complainant and the respondent.
	Stage	Appeal(Objection)
7	Content	<ul style="list-style-type: none"> If the complainant or the respondent has an objection to the results of the investigation and the judgment, he/she files an appeal in writing to the head of the institution.
	Note	<ul style="list-style-type: none"> An appeal must be filed in writing within 30 days from the date of receiving notification of the result.
	Stage	Appeal procedure
8	Content	<ul style="list-style-type: none"> If the appeal is not accepted: Proceed the final judgement stage. If the appeal is decided to accept: Re-investigation must be conducted by the investigation committee.
	Note	
	Stage	Final decision(Findings)
9	Content	<ul style="list-style-type: none"> Based on the final report of the investigation, notify the complainant and the respondent whether there has been a research misconduct in writing.
	Note	<ul style="list-style-type: none"> Both the complainant(s) and the respondent may request re-investigation to the funding agency within 30 days after the decision to the appeal by the research institute.
	Stage	Take disciplinary measure and report to the higher institution
10	Content	<ul style="list-style-type: none"> After all procedures are completed, appropriate disciplinary measures are taken against those who did the research misconduct and, if necessary, report to the higher institutions.

- According to Article 16 of the [Directive for the Upholding Research Ethics], the responsibility for verifying research misconduct lies with the researcher's institution at the time of conducting the research.

2. When you recognize research misconduct

- **(Complainant)** Refers to a person who recognized research misconduct and informed the relevant university or affiliated institution with the information or evidence.
- **(Reporting method)** Report to the affiliated institution's reporting center or to the committee of research integrity verbally, in writing, by telephone or e-mail anonymously or by name.
 - When reporting anonymously, objective evidence such as the name of the researcher, the title of the research project, the title of the paper, and the research misconduct must be submitted.



Reference

[Protecting the Complainant]

- The complainant's identity shall not be exposed under the relevant laws and does not have to face the respondent directly.

[Reporting Center for Research Misconduct]

- ① Reporting center of affiliated institutions (committee of research integrity, research office, industry-academic cooperation group, ect.)
- ② NRF(National Research Foundation of Korea)'s report center (https://www.nrf.re.kr/report/study?menu_no=339)
 - ※ The received report is transferred to the respondent's institution or to the relevant government-supported R&D project implementation agency while the relevant research is being conducted.

[Reporting Misconduct on Research Funds]

- ① The audit office, industry-academic cooperation foundation
- ② NRF(National Research Foundation of Korea) (https://www.nrf.re.kr/report/hotline?menu_no=82)
- ③ Report corruption to [The Anti-Corruption & Civil Rights Commission] (<https://www.acrc.go.kr>)

- (The complainant(s)'s right) The complainant(s) has the right to state opinions and objections, and shall not have any disadvantage on social status or shall not be discriminated in terms of working conditions only by the grounds that he/she has reported the research misconduct.*

* Reference: Article 14 of [Directive for the Upholding Research Ethics]

- The stage of receipt and inquiry : The complainant(s) has the right to be protected his/her anonymity.
- The stage of main investigation:
 - ① The right to apply for challenging specific investigator(s).
Persons in connections with the respondent (relatives, family, seniors, juniors, teacher-pupil relation and so on.), and those who have the possibility to harm the fairness of other investigations) should be avoided.
 - ② The right to make statements
- Stage of judgment: the right to file a complaint to the judgment result after being notified in document.
- The complainant(s) who alleged even though he/she was aware that the allegation was false is not included on the protection list.

3. When you become the respondent of the research misconduct

- **(Respondent)** refers to a person who is under the investigation for research misconduct by complainant's reporting or recognized by the academic community or under suspicion of being involved in the misconduct in the course of the investigation.*

*Reference Article 15 : [Directive for the Upholding Research Ethics]

- A person who directly commits the research misconduct or a person who either actively or passively participates in research misconduct.
 - A person who participated in a research suspected of misconduct or who is listed as the author of the paper.
 - A person who interferes the investigation on research misconduct.
 - Including those suspected of additional charges during the research misconduct investigation process.
 - A testifier or witness during the investigation is not respondent.
- **(The responsibility of the respondent)** The respondent must cooperate with the investigation.
 - When being requested to attend the investigation committee, one must sincerely attend.
 - When being requested to submit related data by the investigation committee, one must do one's best to submit the data.
 - If the respondent refuse to attend or submit data, the respondent may take the responsibility for the research misconduct.*





Reference

* Although not specified in government regulations, proof of research misconduct is usually made by preponderance of evidence. Accordingly, if respondent does not provide evidence against the investigating agency's suspicion under preponderance of evidence, it may be adopted as evidence proving that there is an actual suspicion.

– Source: National Research Foundation of Korea (2021), Research Ethics Guide for Administrative Staffs, p.131.

- **(The right of the respondent)** The respondent has the right to defend himself/herself with the right to make a statement during the investigation, and may raise appeal to the final decision after the investigation of the research misconduct is completed.
 - **Preliminary assessment stage:** The respondent has the right not to disclose his/her identity to the outside world until the research misconduct is proven.
 - **The investigation stage:** The respondent has the right to state opinions, raise objections and pleadings, and the right to know the content of reports, related procedures, and schedules in advance.
 - **The Judgment stage:** The respondent has the right to file a complaint to the judgment result after receiving notification of the judgment result in document.



Reference

[What if the final decision is made as a misconduct?]

- If you are expelled or dismissed from your affiliation, you will not be able to maintain your student status or researcher status, and even if you still have a period of on your visa in Korea, you should leave Korea within 15 days to a month. If you lose your original purpose of entering Korea and your status changes, contact the immigration office for counseling.

- Immigration Office ☎ 1345

(<https://www.immigration.go.kr/immigration/index.do>)

4. Principle of determining research misconduct

- Allegations of research misconduct are judged according to the following criteria.*

*Reference : Article 13 of [Directive for the Upholding Research Ethics]

- Whether the act should be ethically and legally criticized in the academic field to which the researcher belongs.
- Whether the act is considered misconduct according to the [Directive for the Upholding Research Ethics] at the time of the act and the universal standards at the time of the act.
- Comprehensive consideration of the respondent's intention, the quantity and quality of the misconduct, the practices and characteristics of academia, and the benefits gained through the misconduct.
- When judging "other practices that seriously deviate from that are commonly accepted within each academic field", it is necessary to consider whether the acts are prohibited by the written rules or regulations in the researcher's affiliated institution, or whether the act is widely recognized as misconduct in the academic field to which the researcher belongs.

5. Administrative actions (Disciplinary action and sanctions)

- Measures such as caution, warning, reprimand, salary reduction, suspension, dismissal, expulsion, recovery of research expenses, retraction of paper, degree cancellation, promotion and appointment disadvantages, incentives and remuneration reduction may be taken when final judgment is determined as research misconduct.
 - Researchers under student status may take measures such as suspension, expulsion, degree cancellation, withdrawal of thesis, withdrawal of research expenses, scholarships, and remuneration.
 - In the case of committing research misconduct as a faculty or others, disciplinary measures may be taken according to the degree of violation of research misconduct in addition to degree cancellation, thesis withdrawal, withdrawal of research expenses.

<Standards for disciplinary action according to research misconduct by public educational officials>

In the case where the degree of misconduct is serious and intentional	In the case where the degree of misconduct is severe and gross negligence, or the degree of misconduct is weak and intentional	In the case where the degree of misconduct is severe and slight negligence, or the degree of misconduct is weak and gross negligence	In the case where the degree of misconduct is weak and slight negligence
expulsion	dismissal	dismissal or degradation or suspension	wage cut or censure

※ Source : Rules on Disciplinary Action for Educational Officials.

- The disciplinary description for teachers' research misconduct has been extended from 3 years to 10 years.*

* Reference: Article 52 of the [Public Educational Officials Act] and Article 66-4 of the [Private School Act].

- Sanctions against misconduct under the [National R&D Innovation Act].*

* Reference: Attached Table 6 and Attached Table 7 of the [Enforcement Decree of the National Development Innovation Act].

- Restriction on participation and sanctions may be imposed if research misconduct is committed while carrying out national R&D projects as follows.

<Participation restriction due to violation>

Violation	Participation restriction
Research misconduct (Fabrication, Falsification, Illegitimate authorship, and Unjustified duplication)	3 years.

<Additional sanctions for violations>

Violation	Sanctions
Research misconduct (Fabrication, Falsification, Illegitimate authorship, and Unjustified duplication)	1.5 times the total amount of government-funded R&D expenses

- If one's case corresponds to one of the following reasons, the restriction on participation and the additional sanctions may be increased within 1/2 of the amount imposed.

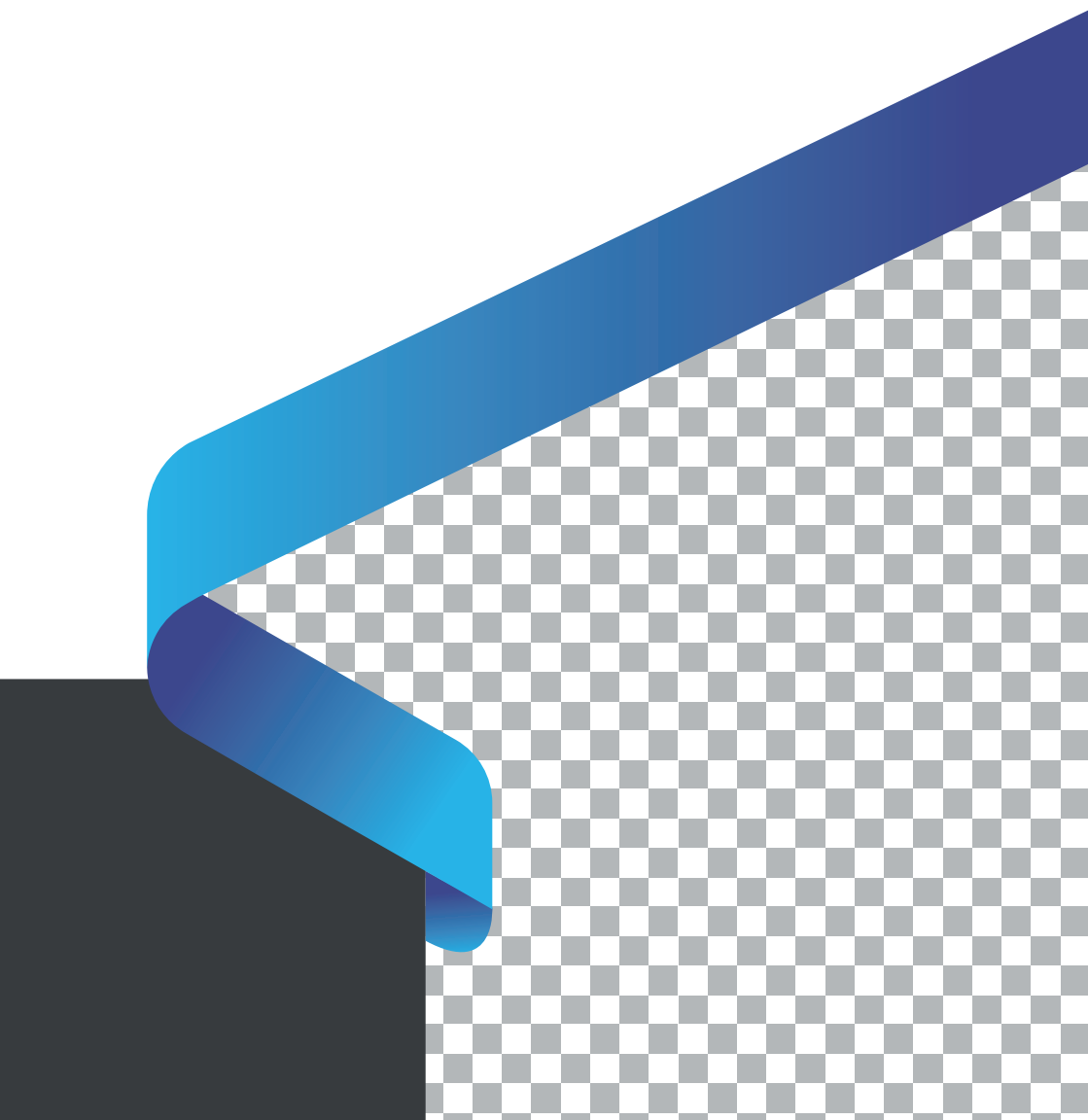
※ Restriction on participation has a limit of 10 years, and sanctions surcharges are five times the government-supported R&D expenses which are already paid.



Reasons for increasing participation restrictions	Reasons for adding sanctions
<ol style="list-style-type: none"> 1. In the case where a person is restricted from participation again with in five years from the end of the participation restriction period for the same violation (in this case, the calculation of the period is based on the date of detection for the same violation again). 2. In the case where there are two or more violations arising from one R&D task (in this case, based on the longest period of restriction on participation due to the violation). 3. Other than the above, when the degree of violation, motive and consequences of the violation are considered necessary to increase the participation restriction. 	<ol style="list-style-type: none"> 1. In the case where there are two or more violations arising from one R&D task (in this case, based on the largest one among the sanctions imposed due to the violation). 2. Other than the above, when the degree of violation, motive and consequences of the violation are considered necessary to increase the sanctions.

- If one's case corresponds to one of the following reasons, restriction on participation and sanctions may be decreased within 1/2 of the amount imposed.

Reasons for reducing participation restriction	Reasons for reducing sanctions
<ol style="list-style-type: none"> 1. Where a person who misconducted, faithfully cooperates with an investigation conducted by the funding agency. 2. Where the violation is recognized as due to minor negligence or error. 3. In other cases, where it is deemed necessary to reduce the amount when considering the degree of violation, the motive and consequences of the violation. 	



05

Types of Research Misconduct

1. Fabrication and Falsification

- **(Fabrication)** The act of falsely making, recording, or reporting original data or research data, research results, etc.
- **(Falsification)** The act of distorting the contents or results of a study by artificially manipulating research materials, equipment, processes, etc. or arbitrarily modifying or deleting research raw materials or the research data itself.



Reference

[Recommendations]

- The following recommendations are not stipulated by law, but they explain matters that need to be carefully observed by researchers for proper research performance.

(1) Subjects for prevention of fabrication and falsification.

① (range) “research raw data”, “research data”, “research results”, and “research output” and so on.

② (form) Various forms such as data, sentences, images, sounds, videos, materials, products, and machines are included.

- Biomedical studies include animals, plants, human origin, cell lines (including chromosomes, genomes), microscopic photographs, radiographs, and electrophoresis gel photographs.

* In Korea, since ‘research raw data’ is included as a target for fabrication and falsification, the scope of protection is expanded compared to ‘data or results’ in the United States.

(2) How to prevent and respond to fabrication and falsification.

① Collects and records researcher’s data, research data, and research results as they are.

- All data must be recorded and stored as it is.

- The source of the data must be accurately indicated and collected in a legitimate way.

- Researchers should not arbitrarily judge the value of data and store it selectively.

- ② Objectivity should be maintained so that the results are not biased in a specific direction in the translation and interpretation of the data.
 - When removing non-pure data and outlier, it should be based on the universal standards of academia and expert judgment.
 - It is a falsification to delete unfavorable data to lower the P value to within the valid range (usually 0.05).
- ③ Always store and preserve evidence that can be submitted, and make a copy.
 - Research raw data should be stored and disclosed to prepare for alleged tampering.
- ④ Research notes should be prepared faithfully and managed to prevent deformation when storing and preserving data.
 - Only objective facts should be recorded in detail and accurately without fabrication and falsification of the contents described.
 - The research process and results should be recorded so that third parties can reproduce them.
 - When revising the contents of the description or attaching additional data, the person's signature and date must be entered.

2. Plagiarism

- **(Definition)** The act of making a third party recognise another person's original ideas or creations as his/hers creations by using them without indicating appropriate sources.
 - In the case where all or parts of another person's research is used without indicating its original source.
 - In the case where the source is not indicated while partially modifying and using the word and sentence of another person's work.
 - In the case where the source is not indicated while utilizing the original idea of the others and so on.
 - In the case where the source is not indicated while translating and using another person's work.



Reference

[Recommendations]

- The following recommendations are not stipulated by law, but they explain matters that need to be carefully observed by researchers for proper research performance.

[Prevention of plagiarism]

- (Prevention of plagiarism) Plagiarism can be prevented by accurately indicating the source and citing within an appropriate range.
 - (1) Direct and indirect citations should be applied correctly.
 - ① (Direct citation method) Literally quoting the sentence expressions of the original text, marking the cited part in double quotes, and adding source indicator (footnote or annotation).
 - ② (Indirect citation method) Transforms or summarizes the expression of the original text in the meaning one understands, and adding source indicator (footnote or annotation).
 - (2) Even if the source is accurately indicated, excessive citation corresponds to plagiarism.
 - (3) Even though only the secondary information was referenced, the act of indicating the source as if it is the primary information is also plagiarism.
 - (4) If multiple parts are cited from the same reference, the source must be indicated for all parts cited.
 - (5) Before submitting the manuscript, plagiarism should be actively prevented by using a sentence similarity test program.
 - (6) Even when translating and using another person's work, appropriate source must be indicated.

3. Illegitimate Authorship

(1) The conception of author

- **(Importance of Author)** As the legitimate recognition of the contribution to the research results is a fair distribution of achievement, violating it can harm the research community.
- **(The Definition of Author)** The author means a person who makes a significant intellectual or academic contribution in the entire stage of the research.
 - Although the meaning of "significant intellectual or academic contributions" may apply differently from field to field of the study, it is common that "intellectual" or "academic" contributions should be made to the results of the study.

(2) The author's role and responsibility in the entire stage of the research

- **(Research Plan and Design)** Those who played a very important role in designing research, determining research methodologies, setting concepts, and starting research through new research resources (making new statistical data, developing new hypothesis or research-related substances or inventions and so on).
 - ※ **(Contributor, not an author)** A person who has contributed to the study by simply receiving research funds, supporting research funds, or providing existing research resources.
- **(Research Conduct)** Collection, analysis, and interpretation of research data to draw conclusions and actually performing research.
 - ※ **(Contributor, not an author)** A person who carries out repetitive work like a technician, a person who simply advises or supervises without directly conducting research.



- **(Research Report)** The author must derive the research results and write the manuscript by oneself and should review and revise the written manuscript.
 - All authors should be responsible for the integrity of the research, and should respond and take actions against the questions or concerns about the research result from editors and readers.
- **(Management and Supervision of Research)** Train and educate researchers directly related to research tasks, and actively participate in research to lead research results.
 - ※ **(Contributor, not an author)** Those who are not considered as contributing “directly” as they have contributed only to the extent of training and educating researchers.

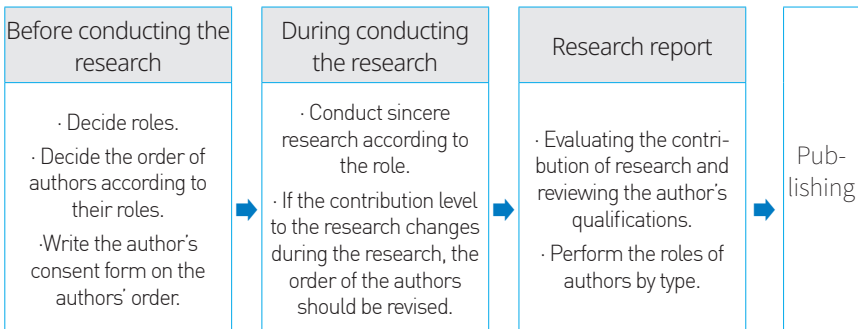
(3) The definition and type of illegitimate authorship

- **(Illegitimate Authorship)** The act of not granting the author’s qualifications to a person who has contributed to the research contents or results without appropriate reasons, or the act of granting the author’s qualification to a person who has not contributed only by the reasons of gratitude or courtesy.
 - In the case of granting author qualifications even though there is no contribution to the contents or results of the research.
 - In the case where author qualification is not granted even though there is a contribution to the contents or results of the research.
 - In the case of publishing the mentoring student’s thesis on an academic journal only in the sole name of the tutor.

• (Types of Illegitimate Authorship)

- In the case where the author of the paper voluntarily puts researchers with status, reputation, or influence in the relevant academic world as authors without consent to facilitate the submission of the thesis or only to increase the reliability of the paper.
- The act of a senior in the laboratory or a senior professor of the department using his/her position to pressure junior researchers to add his/her name to the paper.
- When two or more researchers conspire with each other and include each other's names as authors regardless of their actual contribution.
- In the case where the researcher's people in connection (spouse, relative, minor, or anyone who is in relation with the researcher) are listed as authors without any or sufficient contribution to the study.
- In a case where the author is excluded from the author's list regardless of his/her will despite his/her qualification as an author: it also corresponds to plagiarism as he/she has pirated the research results of another person.
- The ghostwriting of the paper is also a very serious illegitimate authorship which falls under the above case.

(4) Author's responsibilities and how to choose the author order



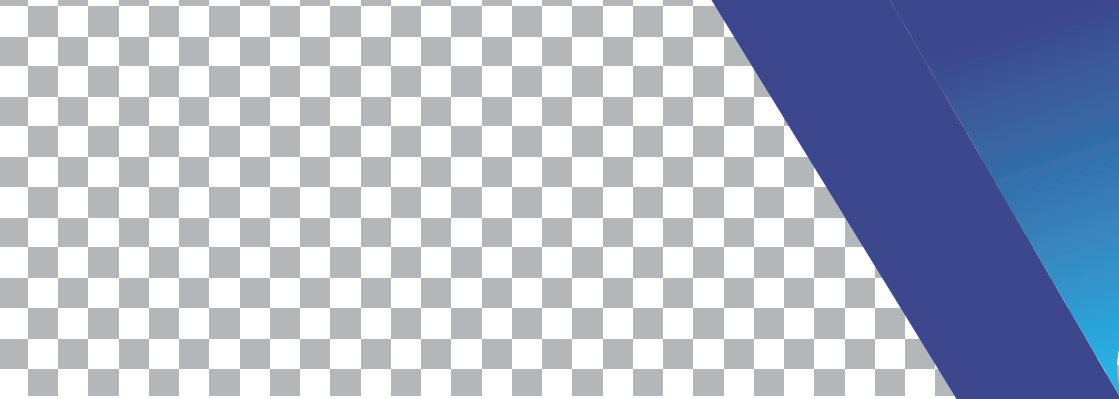
4. Unjustified Duplication

(1) Definition

- “Unjustified Duplication” means obtaining unfair advantages by publishing a work that is identical or substantially similar to his/her previous research outputs without giving appropriate credit.
 - In a case where there is no significant qualitative difference in analysis and conclusion even if parts of the contents are changed or new contents are added from the researcher’s previous work.
 - Since the copyright of one’s own work belongs to an academic society or publisher, when using one’s previous work, one must obtain permission from the copyright holder and indicate the source.

(2) Types of Unjustified Duplication

- The followings may constitute inappropriate duplicate publication.
 - (salami publication) The act of dividing a single work into two or more works.
 - (imalas publication) The act of presenting as if it were a new paper by adding additional or data to the previous work .
 - (Mosaic plagiarism) The act of separating some of the previous works and collecting them into a single paper.
 - (Translated publishing) When a paper published in Korean is translated into a foreign language and re-published, or in an opposite case, act of publishing without appropriate citation or without publisher’s consent



A Guidebook of Research Integrity
For International Scholars

Appendix

I . Directive for the Upholding Research Ethics

II . A Desirable Lab Culture

Appendix I Directive for the Upholding Research Ethics

- Because the authors translated the Directive, some part may not convey the clear meaning of the original guideline.

Directive for the Upholding Research Ethics

[Enforcement 2018. 7. 17.] [Ministry of Education Ordinance No. 263, July 17th, 2018, Partial Amendment]
 Ministry of Education (Academic Research Affairs Division), +82-44-203-6852

Chapter 1 General Provisions

Article 1 (Purpose)

This guidebook sets out the matters delegated by Article 15 of the “Enforcement Decree of the Sciences Promotion Act” and presents the basic principles and directions for the roles and responsibilities necessary for securing research integrity of researchers and universities, and sets matters for preventing research misconduct.

Article 2 (Definitions)

The terms used in the guidebook are defined as follows:

1. The term “Researcher” refers to researchers in the context of Article 2, Subparagraph 5 of the “Enforcement Decree of the Sciences Promotion Act.”
2. The term “Academic Community” (hereinafter referred to as “Academic Community”) refers to universities, research institutes, and academic organizations in the context of Article 2, Subparagraphs 2–4 and Article 5, Subparagraph 2 of the “Enforcement Decree of the Sciences Promotion Act.”
3. The term “Professional Organizations”(hereinafter referred to as “Professional Organizations”) refers to institutions that support, manage, and supervise researchers and research institutions.
4. The term “Research Materials” refers to raw data and literature collected by the researcher during experiment, observation, and survey process.

5. The term “Research Data” refers to the processed data of research materials and secondary data or literature created using them.
6. The term “Research Outcome” refers to the results and outcomes from analyzing research data.
7. The term “Research Record” refers to the academic record and intellectual property such as academic reports, theses, publications, and any documents that embody the facts resulting from scientific or scholarly inquiry.

Article 3 (Subject-Matter and Objectives)

- ① Chapters 2–5 of this guidebook are applied to professional organizations and academic community carrying out the following projects:
 1. Academic support projects under Article 5 of the “Enforcement Decree of the Sciences Promotion Act”;
 2. Basic and specific research projects, under the jurisdiction of the Ministry of Education, under Articles 6 and 14 of the “Basic Research Promotion and Technology Development Support Act”;
 3. R&D projects under the jurisdiction of the Ministry of Education that are not described in Subparagraphs 1 and 2;
 4. Other projects and areas deemed necessary by the Minister of Education;
- ② Professional organizations and the academic community may establish and implement their research ethics guidebooks based on Chapters 2 to 4 of this guidebook for their research activities and projects entrusted by external entities other than the state.
- ③ In cases where professional organizations and academic community do not have a research ethics guidebook, Chapters 2 to 4 of this guidebook can be applied to research ethics issues for their research activities and projects supported by government agencies other than the Ministry of Education and external entities other than the state. Here, “their research activities” include the presentation of dissertations and research conducted with academic community budgets. Also, “projects supported by the government agencies other than the Ministry of Education, and external entities other than the state” include research entrusted by national institutions, corporations, and private organizations other than the Ministry of Education

Article 4 (Scope of Application)

This guidebook applies to the entire scope of research and development, including R&D project proposals, project execution, reporting and publication of research outputs, and shall follow this guidebook unless otherwise stipulated by other laws.

Chapter 2

Roles and Responsibilities of Researchers and Academic Community

Article 5 (Roles and Responsibilities of Researchers)

Researchers shall conduct research autonomously based on freedom of research but shall comply with the following matters.

1. Respecting the character of the research subjects and treating them fairly;
2. Maintain confidentiality of the research subjects;
3. Conducting honest and transparent research based on facts;
4. Upholding an academic conscience as a professional when giving back to society;
5. Contributing to academic development by publicizing new academic outputs;
6. Acknowledging and respecting the achievement of prior researchers by properly stating the sources when utilizing the copyrighted works of yours and others;
7. Upholding ethical responsibilities in the process of concluding research agreement, receiving and executing research grants;
8. Indicating all research-related conflict of interests in the research outputs without affecting the interests of the funding agencies;
9. Disclosing the researchers' affiliation and position (author information) when publishing research outputs to improve the reliability of the research;
10. Providing continuing research ethics training and education;

Article 6 (Roles and Responsibilities of Academic Community)

- ① Academic community shall use diligent efforts to create a rational and autonomous research environment and culture so that researchers can devote themselves to research and comply with research ethics.
- ② Academic community must have their code of ethics to foster research ethics

- ③ Academic community may establish and operate organizations to mediate and coordinate conflicts or disputes during research, ensure ethical standards, and prevent research misconduct.
- ④ Academic community shall establish and operate organizations to verify and judge in the event of an allegation of research misconduct.
- ⑤ Academic community shall provide research ethics education and training regularly so that researchers can comply with research ethics and prevent misconduct in research activity.
- ⑥ Academic community shall actively cooperate with the Minister of Education or the heads of professional organizations when carrying out work to establish research ethics, such as conducting research ethics surveys.
- ⑦ Academic community must actively cooperate with the request of the Minister of Education or the head of professional organizations by confirming and managing author information when publishing journals, hosting academic conferences and managing research achievements.
- ⑧ Academic community shall strictly investigate allegations of research misconduct that have been recognized or reported and shall actively cooperate with the Minister of Education, professional organizations and academic community when materials of the allegation of possible misconduct are requested.

Article 7 (Roles and Responsibilities of Professional Organizations)

- ① The heads of professional organizations shall prepare their code of ethics based on Chapters 2 through 4 of this guidebook.
- ② The heads of professional organizations shall regularly provide research ethics training and education to their researchers and staff.

Article 8 (Research Ethics Training and Support)

- ① The Minister of Education and the heads of professional organizations shall formulate necessary support measures to spread awareness of research ethics through education, publicity, and information provision, and develop and disseminate research ethics educational materials.

- ② Researchers participating in R&D projects under the jurisdiction of the Ministry of Education must complete research ethics training from an educational institution designated by the research agreement.

Article 9 (Self-Regulation of Ethical Practices)

When establishing its code of ethics, the academic community shall include the following matters and the contents of this guidebook under Article 17, Paragraph 1 of the "Enforcement Decree of the Sciences Promotion Act enforcement ordinance." However, when a government-funded research institute concludes an R&D project agreement under the jurisdiction of the Ministry of Education, if the content of the agreement includes verification, reporting, and follow-up measures of research misconduct presented in this guidebook, it shall be deemed to have established its provisions.

1. Roles and responsibilities of researchers
2. Scope of research misconduct
3. Organization, department, or person in charge of handling and investigating research misconduct allegations
4. Research misconduct self-investigation procedure and time for completion
5. Structure and operating principles of verification bodies such as the committee for conducting the inquiry and investigations (hereinafter referred to as the "investigation committee")
6. Plan to maintain the confidentiality of the complainant(s) and respondent(s)
7. Procedure after the final outcome

Article 10 (Structure and Function of Research Ethics Advisory Board)

- ① The Minister of Education may establish a "Research Ethics Advisory Board" composed of relevant experts to receive general advice on research ethics policies.
- ② The Research Ethics Advisory Board shall be composed of no more than 15 members, including one chairperson.
- ③ The Minister of Education shall appoint the Research Ethics Advisory Board members from among those who have abundant knowledge and experience in related fields, and the chairperson shall be selected among the members.
- ④ Other matters necessary for the operation of the Research Ethics Advisory Board can be determined by the chairperson.

- ⑤ Expenses required for the operation of the Research Ethics Advisory Board may be expended within the budget.

Article 11 (Receiving and Handling Allegations of Research Misconduct)

- ① The Minister of Education and heads of professional organizations and academic community must establish a reception desk to receive and handle allegations of research misconduct.
- ② In cases where the Ministry of Education or a professional organization receives an allegation of research misconduct or becomes aware of the fact that it has occurred, measures should be taken by transferring the information to the relevant institution for investigation.

Chapter 3 Research Misconduct

Article 12 (Scope of Research Misconduct)

- ① Research Misconduct refers to the following items made in the proposal, execution, result reporting and presentation of R&D projects.
 1. "Fabrication" means making up research materials, data or output and recording or reporting them
 2. "Falsification" means 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" means the appropriation of another person's ideas, processes, results or words, as described in the following, without giving appropriate credit and presenting the creation as its own to a third party.
 - a. In cases where all or part of others' research are used without giving appropriate credit
 - b. In cases where words or sentence structures of others' copyrighted work are used without giving appropriate credit
 - c. In cases where original ideas of others are used without giving appropriate credit
 - d. In cases where translations or utilization of other's work are used without giving appropriate credit

4. "Illegitimate" means removing name(s) who made contributions to the research or writing of a manuscript without justifiable reasons or unjustly naming other authors who have made little or no contributions to the research or writing of a manuscript due to respect and appreciation. The following describes unethical authorship practices.
 - a. In cases where authors who have made little or no contributions to the research or writing of a manuscript are named;
 - b. In cases where authors who have made contributions to the research or writing of a manuscript are removed;
 - c. In cases where the academic advisor publishes his or her student's thesis as his or her own work;
 5. "Unjustified Duplication" means obtaining unfair advantages by publishing a work that is identical or substantially similar to his or her previous research outputs without giving appropriate credit.
 6. "Interference with the investigation on research misconduct" means intentionally interfering with the investigation of research misconduct or inflicting harm on the complainant.
 7. Other practices that seriously deviate from those that are commonly accepted within each academic field
- ② In addition to items in Paragraph 1, the heads of the academic community may include practices that are deemed necessary for self-investigation or prevention of research misconduct

Article 13 (Assessing Research Misconducts)

- ① Allegations of research misconduct are judged according to the following criteria.
 1. Whether the act should be ethically and legally criticized in the academic field to which the researcher belongs;
 2. Whether the act is considered misconduct according to the "Research Ethics Guidebook" or universal standards for ethical issues at the time of the act;
 3. Comprehensive consideration of the respondent's intention, the quantity and quality of the misconduct, the practices and specificity of academia, and the benefits gained through the misconduct.;
- ② When judging "other practices that seriously deviate that are commonly accepted within each academic field" under Article 12, Paragraph 1, Subparagraph 7, it is necessary

to consider whether the acts are prohibited by implied terms in the researcher's affiliated institution, or whether the act is widely recognized as misconduct in the academic field in which the researcher belongs.

Chapter 4 Verification of the Research Misconduct

Article 14 (Maintaining Confidentiality of Complainants)

- ① An "complainant" refers to a person who recognized a research misconduct and informed the relevant university or affiliated institution or the Ministry of Education with the information or relevant evidence.
- ② The complainant(s) may provide information in any conceivable form, oral or written, by phone or email, using his or her real name as a matter of principle. However, any case in which an anonymous provision of information includes the project or paper title accompanied by details and substantive evidence of concrete misbehavior sent by post or email shall be treated as information provided under the real name.
- ③ The Minister of Education and the heads of the academic community shall make their best effort to protect the complainant from disadvantages or discrimination of status for reporting research misconduct.
- ④ The complainants' identifying information shall not be disclosed.
- ⑤ The relevant institution shall be responsible if the complainant faces disadvantages or discriminations under Paragraph 3 or if the complainant's identifying information is exposed against his or her will.
- ⑥ The complainant(s) shall have the right to request that the investigation or report handling organization provides information on the ongoing investigation procedure, schedule, etc. after reporting the misconduct
- ⑦ These provisions shall not apply to the protection of the complainant(s) who reported even though they knew or should have known that the contents they reported were false.

Article 15 (Maintaining Confidentiality of Respondents)

- ① A “respondent” refers to a person under the subject of investigation for research misconduct due to complainant(s) reporting or recognized by the academic community or under suspicion of being involved in the misconduct in the course of the investigation. Individuals summoned to the investigative committee as testifiers or witnesses are not considered respondents.
- ② The investigation organization shall take great care not to unjustified infringe on the reputation or rights of the persons subject to an investigation in the course of verification.
- ③ Any suspicion of misconduct shall not be disclosed to the outside until the result of the investigation is affirmed. However, this does not apply when subparagraphs under Article 29, Paragraph 3 occur, and necessary measures are taken.
- ④ The respondent shall have the right to request that the investigation organization provides information on the ongoing investigation procedure, schedule, etc.

Article 16 (Entity Responsible for Investigating a Research Misconduct Allegation)

- ① The responsibility for verifying research misconduct lies with the institution the researcher belonged to when the research was conducted.
- ② Academic community shall establish an investigation committee and other related organizations (hereinafter referred to as “investigation committee”) to verify research misconduct.

Article 17 (Principles of Research Misconduct Verification)

- ① The Investigation Committee of the relevant institution shall be responsible for determining whether the misconduct occurred. However, the respondent will be responsible for verifying if he or she intentionally damages or refuses to submit materials requested by the Investigation Committee.
- ② The Investigation Committee shall guarantee the complainant(s) and the respondent(s) the right and opportunity to state opinions, raise objections, make arguments, and inform them of the relevant procedures and schedule in advance. In this case, the respondent(s) shall be informed of the details of the report.

- ③ The heads of the academic community shall use diligent efforts to ensure that the Investigation Committee can maintain independence and fairness without being subjected to undue pressure or interference.

Article 18 (Verification Procedure of the Misconduct)

- ① When the heads of professional organizations, academic community intend to verify the misconduct, the “inquiry,” the “investigation,” and the “final outcome” phases must be followed.
- ② If there appears to be evidence of the alleged misconduct, the head of the investigation institution can immediately initiate the investigation without an inquiry phase.
- ③ The head of the academic community shall actively respond to the request for cooperation to verify the misconduct by the institution in which the researcher was affiliated at the time the research was conducted under Article 16, Paragraph 1.
- ④ Upon verifying the misconduct, the head of the academic community shall notify the results to the researcher’s affiliated institution and the academic publisher, where the relevant research paper was published.

Article 19 (Preliminary Investigation)

- ① A Preliminary investigation is a process of determining whether or not an investigation is needed to determine whether it is more likely than not that research misconduct has occurred and must begin within 30 days from the date of receiving an allegation. The head of the investigation institution may autonomously determine the technique for executing the inquiry.
- ② The head of the investigating agency may adjudicate without investigating if the respondent acknowledges all facts of the research misconduct.
- ③ In cases where the head of the investigating institution deems that there is a possibility of the evidence being significantly damaged, he or she may take measures to preserve the evidence under Article 23, Paragraph 2, even if an investigation committee has not yet been formed.
- ④ The head of the investigating institution shall notify the complainant(s) about the result of the inquiry in a written form within ten days of the completion of the inquiry, and it

shall include specific reasons why he or she decided not to undertake the investigation; provided, however, this does not apply to any case in which the complainant is anonymous.

Article 20 (Investigation)

- ① An investigation is a process of proving that the misconduct has taken place, and an investigation committee shall be organized under Article 21.
- ② The investigation committee shall allow both the complainant(s) and the respondent(s) to state their opinions; if the parties do not respond, they shall be deemed to have no objection.

Article 21 (Function and Structure of the Investigation Committee)

- ① The head of the investigation institution shall convene an investigation committee of more than five members, including one chairperson, for the investigation.
- ② When appointing the investigation committee or a verification body under Paragraph 1, all following conditions must be met.
 1. At least 30% of the investigation committee shall be composed of external staff not affiliated with the investigation institution.
 2. More than 50% of the investigation committee shall be experts in the relevant field of research, including at least one expert from a different affiliation.

Article 22 (Exclusion or Evasion of the Investigation Committee)

- ① A person cannot be part of the investigation committee if any of the following apply.
 1. An individual who is or was a relative of the complainant or the respondent under Article 777 of the Civil Act;
 2. An individual who has or had a teacher-student relationship, or a person who conducted joint research with the complainant or the respondent;
 3. Other relevant individuals who may cause harm in carrying out an impartial investigation;
- ② The head of the investigation institution shall notify the complainant(s) of the investigation committee members under Article 18, Paragraph 1 before the investigation, and if a complainant requests a challenge against an investigation committee member with

justifiable reasons, it shall be accepted. However, this does not apply if the complainant(s) cannot be in touch due to circumstances, and in that case, the relevant information must be included in the final report.

- ③ In cases where an investigation committee member has any conflict of interests with the investigation research project, he or she must apply for withdrawal.

Article 23 (Authority of the Investigation Committee)

- ① The investigation committee may request attendance to the complainant(s), the respondent(s), and all witnesses for a statement during the investigation process, and in this case, the respondent must comply with the request.
- ② The investigation committee may request that the respondent provide materials or explanation and take measures to restrict access to the research lab for those involved in the misconduct and preserve the relevant materials with the approval of the head of the investigation institution for the preservation of the evidence.
- ③ The investigation committee shall recommend an appropriate sanction to those involved in the misconduct to the head of the investigation institution.

Article 24 (Final Outcome)

- ① Final outcome is a process where the head of the investigation institution makes the final decision and notifies the complainant(s) and the respondent(s) of the investigation results in written form.
- ② The entire investigation process shall be completed within six months. Provided that if the process requires more time to complete, the investigation institution shall notify the complainant, the respondent and the federal agency of the reason and extend the investigation process.

Article 25 (Objections)

- ① The complainant(s) or the respondent(s) may have the opportunities to challenge the inquiry or investigation outcome to the head of the investigation institution in a written form within 30 days from the date they are notified of the result.

Article 26 (Measures Against Research Misconducts)

- ① The head of the academic community shall take appropriate measures against the misconduct after terminating all proceedings concerning the final outcome and objection to the misconduct allegation.
- ② The head of the academic community shall consider whether the disciplinary action is proportionate to the Research Misconduct to a considerable degree and make sure that it does not go against the academic community's internal regulations, related statutes and the general public perception.

Chapter 5

Special rules applied for R&D projects under the jurisdiction of the Ministry of Education

Article 27 (Exceptions to Entity Responsible for Investigating a Research Misconduct Allegation)

- ① Notwithstanding Article 16, Paragraph 1, the head of the academic community shall request the head of a specialized agency designated by the Minister of Education to investigate if any of the following apply. The head of the specialized agency or funding agency shall comply with the request unless extraordinary circumstances exist.
 1. In cases where self-investigation is challenging due to the difficulty in securing verification experts;
 2. In cases where it is determined that carrying out an impartial and reasonable investigation is unlikely;
 3. In cases where the investigation of research misconduct involves two or more research institutes and does not proceed smoothly

Article 28 (Reinvestigation)

- ① In cases where the complainant or the respondent wants to challenge the results of the objection request under Article 25, he or she may request a reinvestigation of the case to the Minister of Education or the head of the agency designated by the Minister of Education within 30 days of receiving the result.

- ② The Minister of Education or the head of the agency designated by the Minister of Education shall take appropriate measures for the following cases.
1. In cases where it is recognized that there are reasonable grounds for the request of reinvestigation by the complainant(s) or the respondent(s) under Article 28, Paragraph 1;
 2. In cases where a serious defect is found in the final outcome or procedure of the university and affiliated institution, and a reinvestigation is required;

Article 29 (Results of the Reinvestigation)

- ① In cases where the inquiry and the investigation were conducted on the research outcome under Article 3, Paragraph 1 of this guidebook, the head of professional organizations, the academic community shall each submit the investigation results to the Minister of Education within 30 days of completing the investigation process, including the objection request.
1. Inquiry
 - a. Reporting Allegation
 - b. Investigation Report
 - c. The decision to conduct the investigation and the grounds for the decision
 - d. Statements of the complainant(s) and the respondent(s)
 2. Investigation
 - a. Reporting Allegation;
 - b. Investigation Report;
 - c. List of members of the investigation committee;
 - d. The role of the respondent in the research and whether the alleged misconduct is true;
 - e. Relevant evidence and the list of all witnesses and individuals who were interviewed;
 - f. Statements of the complainant(s) and the respondent(s);
 - g. Final outcome of the validation result;
- ③ In cases where the head of the academic community discovers any of the following matters in the course of the investigation under Paragraph 2, he or she must immediately report to the Minister of Education and the head of a special agency; and together with the Minister of Education and the head of a professional organization, the head of the investigation institution shall take measures such as requesting to an investigation agency or issue a formal charge.

1. Any serious violation of laws or applicable rules;
2. In cases where any potential risk and hazard to public welfare or safety occurred, or is likely to occur;
3. In cases where measures of special agency or public authority are required;

Article 30 (Follow-Up Measures to the Reinvestigation Results)

- ① In cases where the final outcome under Article 29, Paragraph 1 states that research misconduct was found, the Minister of Education may take appropriate action (including suspension, refund of research expenses, exclusion from the selection of academic support recipients) against the subject under Article 19 and 20 of the "Enforcement Decree of the Sciences Promotion Act," and notify the respondents' affiliated institution.
- ② In cases where the Minister of Education determines that the investigation report under Article 29, Paragraph 1, is not rational nor valid, he or she may require the investigation institution to submit additional materials related to the investigation or request a reinvestigation if necessary.

Article 31 (Disclosure of Investigation Records and Evidence)

- ① The investigation institution shall keep all records and evidence of the investigation process in the form of audio, video, or documents for at least five years, and the Ministry of Education shall keep the reports under Article 29, Paragraph 1 for at least ten years.
- ② The investigation reports and the list of investigation committee members may be disclosed after the final outcome.
- ③ The list of investigation committee members, witnesses, and individuals interviewed may not be disclosed if there is a possibility of causing disadvantage to the parties concerned.

Article 32 (Entrustment)

The Minister of Education may entrust matters concerning the handling and investigating research misconduct allegations of R&D projects under the jurisdiction of the Ministry of Education, matters concerning the request for investigation or accusation, follow-up measures and reinvestigations, record keeping, as set forth in this guidebook to specialized institutions.

Article 33 (Reinvestigation Process)

As of January 1st, 2018, the feasibility should be reviewed, and measures such as improvement should be taken for every three years (on December 31st of every third year) under "Regulations on the issuance and management of instructions, regulations, etc."

Expanded Addendum <No. 60, March 24th, 2014>

Article 1 (Effective Date)

This guidebook becomes operative and enforceable after the effective date.

Addendum <No. 153, November 3rd, 2015>

Article 1 (Effective Date)

This guidebook becomes operative and enforceable after the effective date.

Addendum <No. 263, July 17th, 2018>

Article 1 (Effective Date)

This guidebook becomes operative and enforceable after the effective date.

Article 2 (Retroactive Application)

Matters prior to implementing this guidebook will be governed by the regulations at the time or customs generally applied in the academic community.

Appendix II**A Desirable Lab Culture**

- If a research community faces human rights violations, workplace harassment, sexual violence, or other difficulties, it can be reported or consulted through the relevant institutions below.

[How to report human rights violations]

- 1) Violence and sexual violence: Nearby police stations and related reporting centers
 - Women's Emergency Call 1366 from the Ministry of Gender Equality and Family.
 - The Korea Women's Human Rights Promotion Agency's Comprehensive Support Center for the eradication of sexual harassment and sexual violence in the workplace 02-735-7544
 - Korea Sexual Violence Counseling Center 02-338-5801
- 2) Bullying at work: Human Rights Counseling Center and other related centers of affiliated organizations.
 - The Ministry of Employment and Labor's workplace harassment counseling center 1522-9000
 - Korea Foreign Workers Support Center 1644-0644
- 3) Other counseling center.
 - National Institute of International Education's Counseling Center for International Students (English) 02-3668-1490
 - National Institute of International Education's Counseling Center for International Students (Chinese) 02-3668-1491
 - Foreigner Information Center (1345).

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