Essential Guide to Research Ethics

Ewha Womans University
Center for Research Compliance

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Essential Guide to Research Ethics

Contents

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1. The concept of research ethics and recent trends

1-1. Concept and core of research ethics

Ethics throughout the entire course of research

To protect research integrity and refrain from committing research misconduct
in designing and establishing a research plan,
proposing a research protocol, conducting a research,
managing and analyzing research source materials and data,
reporting and publishing research results, etc.

Obtaining approval by the Board/Committee prior to conducting research

Human subject research, human materials research,
embryo research, embryonic stem cell line research, and cadaver study
shall be conducted after obtaining approval
by the Institutional Review Board(IRB).

Animal testing shall be conducted after obtaining approval
by the Institutional Animal Care and Use Committee(IACUC).

Organism research shall be conducted after obtaining approval
by the Institutional Biosafety Committee(IBC).

1-2. History of laws and regulations related to research ethics

2023.07.17. The amendment and enforcement of the 「Directive of the Upholding Research Ethics」

As a follow-up measure to the amendment of the 「Sciences Promotion Act」, some of the contents in this directive that were ambiguous or ineffective were amended to reflect the demands of the academic community and changes in the social environment.

- Defined who this directive applies to, with a focus on people and organizations
- Clarified that this directive applies to all research results and outputs conducted by universities, including theses, academic papers as well as the outcomes obtained from the national research and development projects and so on
- To filter out malicious reports, strengthened requirements for anonymous reporting and establishing new provision for requesting supplemention of reporting related data to the complainant
- In order to protect the rights of the respondent under investigation, added new content related to efforts to restore the honor of the respondent under investigation
- Established new provision to allow academic societies and associations to directly investigate research misconduct
- Clarified that preliminary investigation shall be completed within 30 days of commencement and conducted by forming a preliminary investigation committee

2021.06.23. The amendment and enforcement of the 「Sciences Promotion Act」

To establish research ethics for researchers, universities, etc. as well as to effectively prevent and efficient prevention of research misconduct, some of the contents in this act were amended.

- Defined the types of research misconduct
- Clarified the responsibilities and duties of universities
- Established grounds for suspending and recovering research funds in case of research misconduct by researchers

2021.01.01. The enactment and enforcement of the 「National Research and Development Innovation Act」

Emphasizing the creation of an autonomous and responsible R&D environment throughout the process of national R&D projects, and stipulating the contents and procedures for prohibiting and sanctioning misconduct

- Duties of researchers: to comply with research ethics and to conduct truthful and transparent national R&D activities
- Duties of universities: to secure research integrity and prohibit research misconduct in order to secure and support research ethics as well as to prepare and operate their own research ethics regulations for research ethics related to human subject research and animal testing, etc.

2014.03.24. The enactment and enforcement of the 「Directive of the Upholding Research Ethics」

It has become mandatory to establish self-regulatory research ethics regulations for reporting by a complainant, investigation and reporting by preliminary investigation committee and main investigation committee, and follow-up measures regarding research misconduct.

2013.02.02. The amendment and enforcement of the 「Bioethics and Safety Act」

It has become mandatory to review a research protocol by Institutional Review Board and to inspect and supervise the progress and outcomes of the research regarding human subject research and human materials research, etc.

2009.03.29. The enactment and enforcement of the 「Laboratory Animal Act」

It has become mandatory to review a research protocol by Institutional Animal Care and Use Committee and to inspect and supervise the progress and outcomes of the research regarding animal testing.

1-3. Roles and responsibilities of researchers

Respecting the character of the research subjects
and
treating them fairly

Protecting the research subjects' personal information
and
keeping the research subjects' privacy confidential

Conducting honest and transparent research
based on facts

Upholding an academic conscience as a professional
when giving back to society

Contributing to academic development
by publicizing new academic results

Acknowledging and respecting the achievement of prior researchers
by properly stating the sources
when utilizing the copyrighted works of your own and others

Upholding ethical responsibilities
in the process of concluding research agreement,
receiving and executing research grants

Not be influenced by the interests of research funding agencies
and
disclosing any research-related conflicts of interest in the outputs

When presenting or publishing research findings,
accurately identifing the affiliation and position of researchers/authors
to enhance the reliability of the research

Participating in the research ethics education program continuously

1-4. Useful website

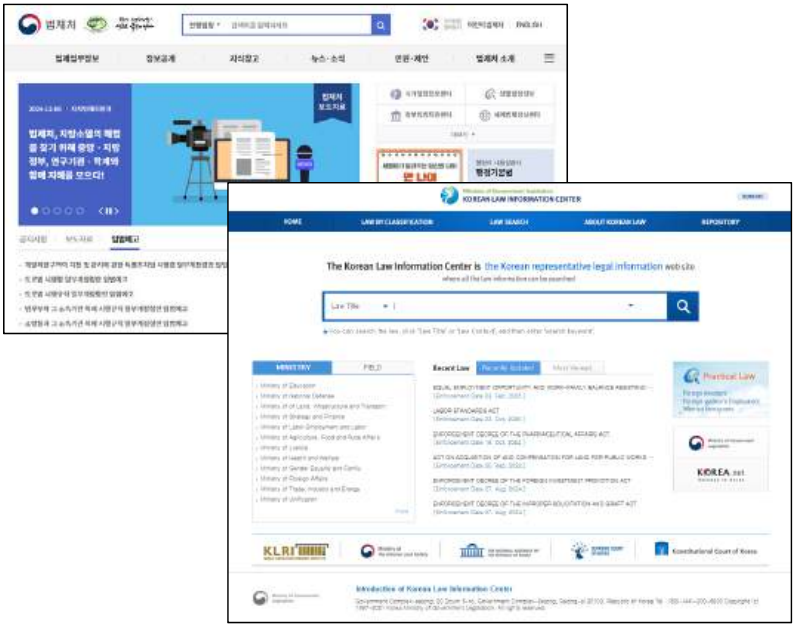
Info

Korean Law Information Center
(under the Ministry of Government legislation)
https://www.law.go.kr

You can search the laws and regulations related to research ethics in the “Decree” section, such as the 「Sciences Promotion Act」, the 「National Research and Development Innovation Act」, the 「Bioethics and Safety Act」, the 「Laboratory Animal Act」.

You can search the guidelines related to research ethics in the “Administrative Rules” section, such as the 「Directive of the Upholding Research Ethics」.

You can find the history and reasons for the enactment and amendment of laws and regulations.



2. Introduction to the Center for Research Compliance

2-1. Roles and contact information

History

An independent organization under direct control of the President that was established in August 2015 with the aim of establishing a comprehensive management system on research ethics

Roles

Supporting the operation of major board and committees related to research ethics,
Education and communications on research ethics

Consulting

Research integrity, Reporting research misconduct, Education and communications on research ethics
02-3277-6541, 7155 research@ewha.ac.kr

Inquiries

Human subject research ethics, human materials research ethics, etc. Research protocol review by the Institutional Review Board(IRB)
02-3277-7152, 7153, 7154 irb@ewha.ac.kr

Inquiries

Animal testing ethics, Research protocol review by the Institutional Animal Care and Use Committee(IACUC)
02-3277-3646 iacuc@ewha.ac.kr

Inquiries

Biosafety, Organism research ethics, Research protocol review by the Institutional Biosafety Committee(IBC)
02-3277-3646 ibc@ewha.ac.kr

2-2. Useful website

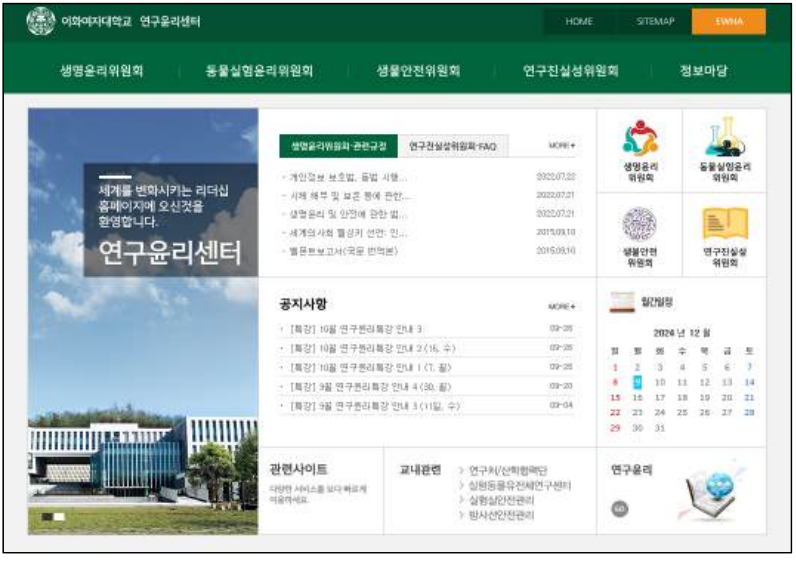
Info

Center for Research Compliance website
https://my.ewha.ac.kr/ethics

You can search the laws and regulations that the major board and committees related to research ethics such as the Research Integrity Committee(RIC), the Institutional Review Board(IRB), the Institutional Animal Care and Use Committee(IACUC), the Institutional Biosafety Committee(IBC) must comply with.

You can find the various reference materials and information related to research ethics including FAQs.

You can check out the research ethics newsletter published monthly by the Center for Research Compliance.



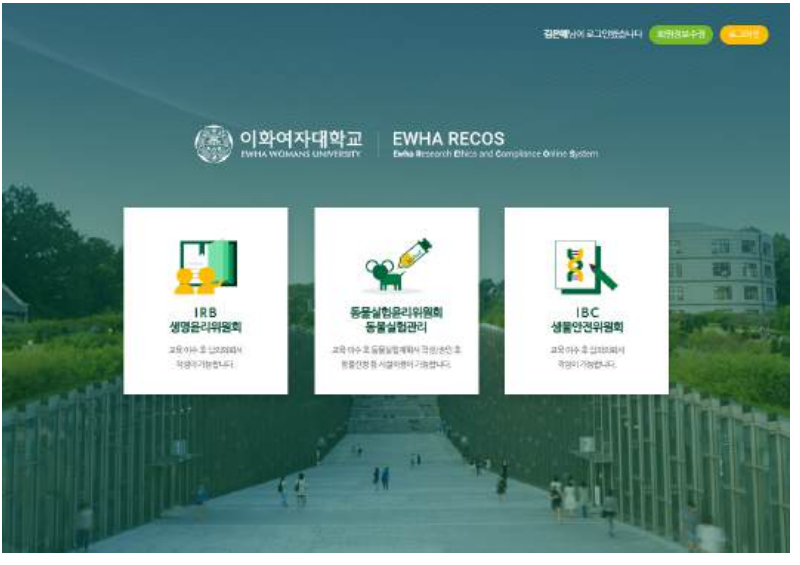
Info

Online System for the Research Protocol Review by the Board and Committee and Management of Laboratory Animals
https://rc.ewha.ac.kr

You can request a research protocol review to the major board and committees related to research ethics such as the Institutional Review Board(IRB), the Institutional Animal Care and Use Committee(IACUC), the Institutional Biosafety Committee(IBC). (You don't have to visit the office!)

You can check the regular meeting schedule of the board and committees and deadline for submitting applications.

You can check the notices issued by the board and committees.



3. Upholding research integrity and prohibiting research misconduct

3-1. Key points regarding research misconduct

Prohibited research misconduct

- Fabrication
- Falsification
- Plagiarism
- Illegitimate authorship
- Unjustified duplication
- Interference with the investigation
- Deviant practices

Considerations when deciding research misconduct

- Possibility of ethical and legal criticism in the academic field
- Universal standards at the time of the act
- Intention of the respondent under investigation
- Quantity and quality of the misconduct
- Practices and specificity of academia
- Benefits obtained by the respondent under investigation

Relevant laws and regulations

「Sciences Promotion Act」,
「National Research and Development Innovation Act」,
「Directive of the Upholding Research Ethics」

Ewha Research Integrity Committee Regulation

Research Integrity Committee

Research Integrity Counseling
Reporting research misconduct

02-3277-6541 research@ewha.ac.kr

How to report research misconduct

You can report to the Center for Research Compliance orally, in writing, by phone, or via email.
In principle, reports should be made under real name, but anonymous submissions are also accepted.
Details and evidence of research misconduct must be provided.

3-2. Scope of research misconduct

Fabrication

The act of falsely making up, recording or reporting research and development materials, data(raw data or secondary data) or outcomes(results) that do not exist

Falsification

The act of distorting the contents or results of a research and development performance by artificially manipulating research facilities, equipment, materials, processes, etc. or arbitrarily modifying, adding or deleting research and development data and outcomes

Plagiarism

The act of making a third party recognize the research and development materials or outcomes outside of general knowledge by a researcher or another person as the researcher's own creations by using them without indicating appropriate attribution of sources

Illegitimate authorship

The act of either not granting the author's qualification to person who has contributed to the research and development contents or results without justifiable reasons, or granting the author's qualification to person who has not contributed to the research and development contents or results for reasons such as expressing gratitude or courtesy, etc.

Unjustified duplication

The act of obtaining unfair advantages, such as claiming research funding or getting recognition as separate research outputs, by publishing a work that is identical or substantially similar to a researcher's own previous research results without indicating appropriate attribution of sources

Interference with the investigation

The act of intentionally interfering the investigation on research misconduct by a researcher himself/herself or others, or inflicting harm to the complainant

Deviant practices

The act that is prohibited by implied terms in the researcher's affiliated institute such as university, etc. or widely recognized as improper research misconduct in the academic field to which the researcher belongs

3-3. Requirements for authorship and attribution

Criteria to be attributed as an author

- To be attributed as an author, an individual must meet all of the following criteria for authorship.
  - ✓ The person who makes a substantial contribution to the setting of the research concepts, the design of the research, the collection of the research data through the conduct of experiments or investigations, the management and supervision of the research, and the analysis or interpretation of the research data
  - ✓ The person who drafts the manuscript or revises the written manuscript critically for important intellectual content
  - ✓ The person who reviews and approves the final version of the manuscript to be published
  - ✓ The person who agrees to be accountable for all aspects of the research to ensure that questions about the accuracy or integrity of any part of the research are appropriately investigated and resolved

Non-author contributors

- Administrative support: those who assisted in getting research funds, obtaining the approval of the research protocols by board and committees related to research ethics such as the Institutional Review Board(IRB), the Institutional Animal Care and Use Committee(IACUC), the Institutional Biosafety Committee(IBC), etc.
- Technical support: those who helped acquire or manage research equipment or research materials, or who carried out simple experiments or aided analyses as a technician
- Manuscript writing support: those who have read manuscript and given advice or carried out technical editing, language editing, proof-reading
- Financial support: those who has contributed to the research by simply providing research funds

Indication of author's affiliation

- When there is a change in the author's affiliation
  - ✓ As a general rule, the author's affiliation in the articles and other research outputs should be the affiliation at the time the research was conducted. But in some cases, the current affiliation may also be indicated.
  - ✓ If it is the accepted practice in the relevant academic field in which the articles and other research outputs are published to indicate the author's affiliation at the time of publication, this may be followed.
  - ✓ However, the author's affiliation should not be chosen arbitrarily to favor an institution in order to facilitate publication.

3-4. Fair methods for secondary publication

Step 1 Be sure to check the need for a secondary publication!

Because newly published work must contain original content that has not been previously published elsewhere, it is inappropriate to republish work that is identical or substantially similar to your own previous work for the same or a similar audience.
Therefore, it is important to check whether or not there is a need for a secondary publication, for example, if there is a meaningful contribution to the dissemination of the work by publishing it in translation because the audience is completely different due to differences in countries and languages.

Step 2 Obtain permission from both the original publisher and the publisher where you wish to republish!

In most cases, the copyright for a work that has already been published is held by the society or publisher who originally published it.
Therefore, if you want to republish the work elsewhere, you must contact the society or publisher that originally published the work and obtain permission to republish it.
Also, you must obtain permission to republish the already published work elsewhere if you wish to republish it once more.

Step 3

Indicate that it is a secondary publication!

Even if you are publishing in a different country, in a different language, and for a different audience, it is important not to mislead readers into believing that the work contains entirely original content that has not been previously published elsewhere. Therefore, you must clearly indicate the original source of the work, ensuring that readers understand it has been previously published by another organization or publisher. This clarification makes it clear that the current publication is a secondary publication, not a new, original work.

Step 4

Submit only one of them as a research achievement!

Secondary publication should not lead to inflated achievements and unfair advantage.
Therefore, when submitting research achievements for evaluation in connection with research project selection, promotion, tenure, etc., only one of them should be submitted as a research achievement.

3-5. Basics and key points about research note

Concept of the research note

It is a document that records the process and results of a researcher's research
from the initiation of research
to the reporting and publication of research results or intellectualization.

Researcher's roles and responsibilities for the research note

The researchers must conscientiously fulfill their obligations,
including writing and managing the research note.

Ownership of the research note

The right to the research note is owned by the Ewha Womans University
as the research institution.

Research note type 1: written research note

A written research note is a research note
that is written in a bound notebook using a writing instrument.

Research note type 2: electronic research note

An electrinic research note is a research note
that records and stores the contents in the form of an electronic document,
which is a document created, transmitted, received, or stored in electronic form
by an information processing system.

Research note requirement 1: written research note

The written research note
should be in a bound format that makes it difficult to insert or remove pages and
should be written using a writing instrument that
can be preserved for a long period of time without deterioration.
Each page of the written research note should be numbered,
have a border with margins, and
include the name of the institution, the serial number of the research note,
the name of the research project, the date the content was recorded,
the signatures of the recorder and reviewer, etc.

Research note requirement 2: electronic research note

The electronic research note should have a function
to identify and authenticate the signature of the recorder and reviewer,
to automatically record the date and time the content was entered, and
to permanently mark a record when a previously entered content has been modified.

Items to be recorded in the research note

The research note should include
not only the method and process of the experiment
but also all results of the experiment, including data considered unsuccessful.
If necessary, it should include the purpose of the research,
any unusual findings or observations, reasons why the experiment was discontinued,
the conception of the invention or the plan to implement the invention,
discussion, conclusions, etc.

Retention and disposal of the research note

Research notes must be retained for 30 years from the completion of the research.
Research notes may be disposed of
by Ewha Womans University as the research institution
after the retention period has expired.
However, even if the retention period has not yet expired,
if the University determines that
the research note no longer has preservation value
due to changes in the technological environment,
it may be disposed of in accordance with the University's regulations.

Checking the research note

The principal investigator as a checker
shall periodically check all records of the research note and sign the research note.
However, the principal investigator
may appoint a higher-ranking or more senior person as a checker
considering the nature of the research.

3-6. How to write a research note

1. The researcher must write the research note that it has both informational and evidentiary value.

2. A separate research note should be created for each participant involved in an R&D project.

3. The researcher must describe the process and results of the research in full, accurate, and detail to enable third parties to recreate experiments.

4. The researcher must record only factual information without falsification or arbitrary modification.

5. The contents recorded in the research note, including the original, modified, and added, shall be written within the borders of each chapter, dated, and signed by the recorder and the inspector.

6. The researcher must write the content of the research activities directly into the research note, rather than attaching a note to the research note.

7. If a record ends without filling an entire page, a diagonal line should be drawn to indicate that the remaining space is a margin and to prevent the possibility of additional entries.

8. If the content of the research note is not the work or opinions of the research note taker, it should be clearly stated such as, and if the quotations are used, the sources must be clearly cited.

9. Do not tear out any pages of the research note to avoid the misconception that unfavorable information was present.

10. Items that can't be written directly in the research note(e.g. photographs, printouts from laboratory equipment, results from other laboratories) should be attached and fixed in chronological order(in date order), dated, and signed on the borders to prevent subsequent replacement of other materials.

11. If a page is skipped during the writing process, it must be explicitly marked as blank to prevent any additional records from being added.

12. Any additional insertions must include an insertion mark and the date of insertion.

13. When correcting the content that has already been written, the original content must not be erased using correction fluid. Instead, draw a diagonal line through the content, and the person making the correction must date and sign the correction.

14. When correcting the significant content, the reason for the correction must be stated, and both the recorder and the inspector must date and sign.

15. When creating the research note in audio, video, or similar formats, the researcher must use the electronic research note which has a function to identify and authenticate the signature of the recorder and reviewer, to automatically record the date and time the content was entered, and to permanently mark a record when a previously entered content has been modified.

3-7. Follow-up action in case of research misconduct

Disciplinary measures and sanctions

Restriction on participation
in national R&D activities for up to 10 years

Additional monetary sanction not exceeding five times
the amount of government R&D funds already paid

Recovery of all or the remaining of the R&D funds already paid

Deleting research results

Disciplinary actions
such as dismissal, demotion, salary reduction, reprimand, etc.

Request for the retraction or correction of articles
and notifying the journal editor about decided research misconduct

Restrictions
on applications for intramural grants and research support

3-8. Reference

* Available on the Center for Research Compliance website!
https://my.ewha.ac.kr/ethics

CRE Research Ethics Consultation Casebook

This compilation of Q&As provides practical answers to issues, questions and concerns that faculty members, graduate students, researchers, and research ethics professionals face in terms of plagiarism, duplication, copyright infringement, qualifications for authorship, proper attribution of authorship and acknowledgement, conflict of interest, research misconduct, verification of research integrity, predatory academic activities, data management, research notes, the IRB, and the IACUC.

Casebook on Disciplinary Measures Taken on Research Misconduct at Universities

This casebook provides outlines, disciplinary measures and grounds for such measures, the standard, aggravating and mitigating grounds for final disciplinary measures regarding the decisions and disciplinary actions rendered against actual research misconduct cases at universities. Although it is difficult to apply a uniform standard in determining whether an action constitutes research misconduct and the severity of disciplinary measures, it is expected that universities will refer to the actual cases to enhance fairness in the future.

Handbook on Citing Sources

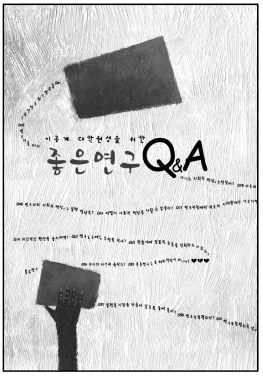
This handbook provides hypothetical cases to help researchers understand the correct way of citation and properly cite sources. It contains information about plagiarism, citation, appropriate and inappropriate examples of citation per type, cases of utilizing online data, and Q&As. It will be highly helpful for clearly recognizing the importance of source citation as well as properly writing papers or reports.

Research Ethics; A Friend or Foe?

This handbook provides various cases and content in the order of the research procedure for easier understanding of essential research ethics.
The titles of each chapter are easy and interesting.
It serves as a comprehensive guide to research ethics based on relevant laws for quality research and includes the content necessary for responsible research by researchers, such as conflict of interest and laboratory culture, as well as content on research integrity.

Casebook on Foreign and Domestic Research Misconduct

This casebook presents adaptations of actual, problematic research misconduct cases at home and abroad. It contains detailed information encompassing case outlines, content on the report of misconduct, explanation by the respondents under investigation, decisions on investigation findings, and follow-up measures. It helps readers to clearly understand key issues based by providing the reasons why certain actions constituted research misconduct, grounds for follow-up measures, and lessons learned from the cases.



Q&A on Ethical Research for Science and Engineering Graduates

This booklet covers key issues of research ethics in the science and engineering field, social responsibilities of researchers, conflict of interest, data processing and research recording, academic papers, researcher communities, and research misconduct. In particular, it is easy to understand and highly interesting as it features Q&As on research ethics issues from science and engineering graduate students, actual discussion points, and a webtoon that provides a food for thought.

Research Ethics for Preservice Teachers

This book covers the theoretical foundations of research ethics education; the role and competencies of teachers in establishing research ethics; research misconduct, including falsification, fabrication, plagiarism, misattribution, and improper duplication of authorship; research ethics in human and animal research; research ethics in teaching and learning; course content for research ethics education; and reporting and dealing with research misconduct.

Copyright Manuals for Researchers

The book goes into great detail about what copyright is, how it relates to research ethics, who can be recognized as a copyright holder, how to use other people's work fairly, when plagiarism can be a problem, and much more. It can be particulary helpful in answering questions about how to mark citations to avoid getting into trouble for plagiarism.

2022 A Guidebook of Research Integrity for International Scholars

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 investigation of research misconduct,
and the scope and types of research misconduct.

2022 为外国人的 研究伦理 履行指南

本指南为国内的外国研究者遵守研究真实性,
预防研究不端行为而制作的指南。
介绍韩国的研究伦理法令体系,
说明研究不端行为的调查及考证,
研究不端行为的范围和类型。

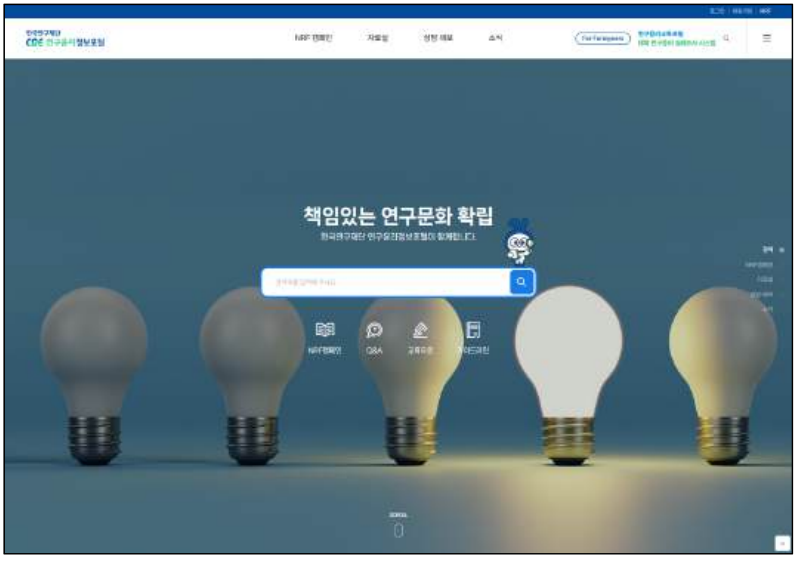
3-9. Useful website

Info

Research Ethics Information Portal
https://cre.nrf.re.kr

This website operated by the National Research Foundation of Korea provides comprehensive information on research ethics including research misconduct cases, various resource materials, Q&As and FAQs.

Online reporting on research misconduct can be made on the website.

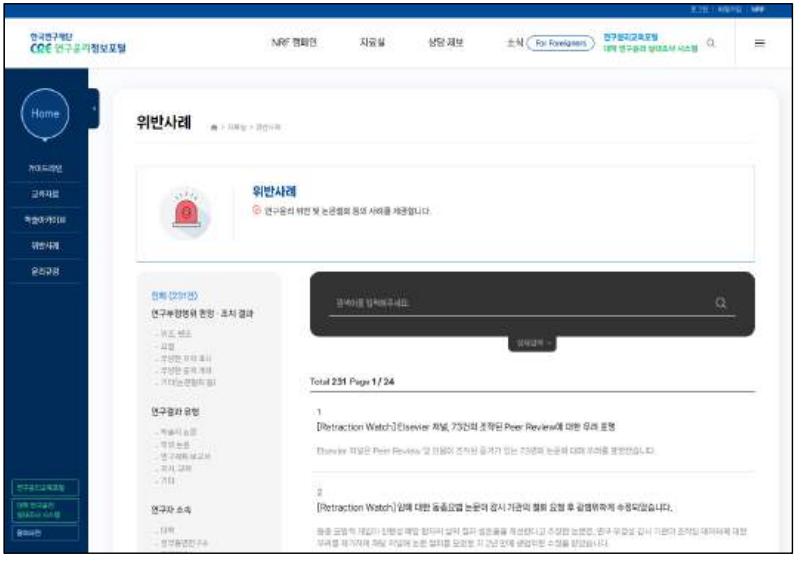


Info

Search System on Research Misconduct Cases
https://cre.nrf.re.kr/caseSearchList.do

This website, which is linked to the Research Ethics Information Portal operated by the National Research Foundation of Korea, provides details of decisions and follow-up measures on research misconduct.

It includes information on the types of research findings, the researchers' affiliated institutions, the status of the research funding, the authority responsible for the verification and decision, distinctions between domestic and overseas cases, and research misconduct cases by the year of decision.



4. Complying with human subject research ethics and protecting research subjects

4-1. Key points regarding human research and IRB

Scope of human research reviewed by IRB

- Human subject research
- Human materials research
- Embryo research
- Embryonic stem cell line research
- Cadaver research

Deliberation reviewed by IRB

- Ethical validity of a research protocol
- Scientific validity of a research protocol
- Legitimacy of informed consent
- Research risks and the safety of research participants
- Protection of personal information and privacy
- Matters regarding bioethics and safety

IRB meetings

Principle	Exception
Convened meeting	Ad hoc meeting

Need for IRB review

Principle	Exception
Review (approval)	Review exemption (confirmation)

IRB review procedures

Principle	Exception
Convened review	Expedited review

Relevant laws and regulations

「Bioethics and Safety Act」,
「National Research and Development Innovation Act」,
「Personal Information Protection Act」,
「Act on Dissection and Preservation of Corpses」

Ewha Institutional Review Board Regulation

Institutional Review Board

Consultation on human subject research ethics
Inquiries regarding IRB review

02-3277-7152~4 irb@ewha.ac.kr

How to apply for IRB review

You need to check regular meeting dates and submission deadlines.

After registering in the e-IRB system, submit the required documents online, including the research protocol, the informed consent form, the researcher's CV, the certificate of education, etc.

4-2. Classification of human research

Human subject research to be reviewed by IRB

- Research involving physical intervention on human subjects: research that is aimed at obtaining data through direct manipulation of the research subject or manipulation of the research subject's environment
- Research conducted through interaction with human subjects: research that is aimed at obtaining data through observation of the research subject's behavior, face-to-face survey on the research subject, etc.
- Research using personally identifiable information: research that uses information that can directly or indirectly identify the research subject

Human subject research that can be exempted from IRB review

- Research that meets the standards prescribed by the 「Bioethics and Safety Act」 with minimal risks to the research subject and the general public

Non-human subject research

- Research conducted directly or on commission by the government or local governments to review and evaluate public welfare or service program
- Research related to the routine educational practice in schools under article 2 of the 「Elementary and Secondary Education Act」 and article 2 of the 「Higher Education Act」 and in educational institutions as prescribed and notified by the Minister of Health and Welfare

4-3. Classification of human materials research

Human materials research to be reviewed by IRB

- Research that directly examines and analyzes human body components that have been collected or extracted from the human body such as a tissue, a cell, blood, and body fluid
- Research that directly examines and analyzes serum, plasma, chromosomes, DNA(Deoxyribonucleic Acid), RNA(Ribonucleic Acid), proteins, etc. that have been separated from human body components

Human materials research that can be exempted from IRB review

- Research that meets the standards prescribed by the 「Bioethics and Safety Act」 with minimal risks to the human materials donor and the general public

Non-human materials research

Not applicable

4-4. Classification of other research

Embryo research to be reviewed by IRB

- Research for the development of therapies for infertility and technology for contraception, research on therapies for muscular dystrophy or other rare or incurable diseases specified by the 「Enforcement Decree of the Bioethics and Safety Act」, research specified by the 「Enforcement Decree of the Bioethics and Safety Act」 after deliberation by the National Bioethics Committee that uses residual embryos in vitro only before primitive streak appears during embryonic development

Embryonic stem cell line research to be reviewed by IRB

- Research projects for diagnosis, prevention, or treatment of a disease, Basic research projects on characteristics and division of stem cells, other research projects specified by the 「Enforcement Decree of the Bioethics and Safety Act」 after deliberation by the National Bioethics Committee that use an embryonic stem cell line established by embryo research

Cadaver research to be reviewed by IRB

- Research that uses parts of a cadaver or byproducts separated from a cadaver

4-5. Classification of IRB review procedures

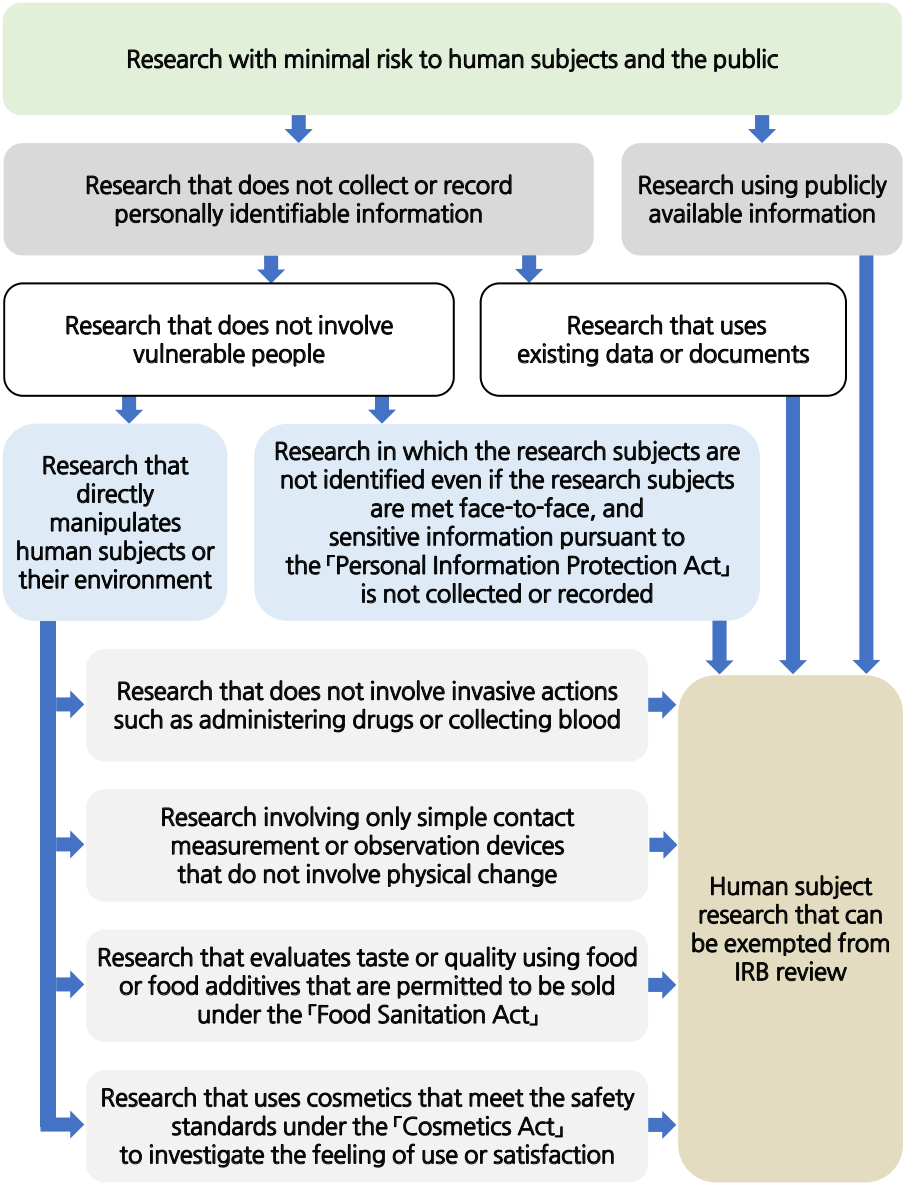
Convened review

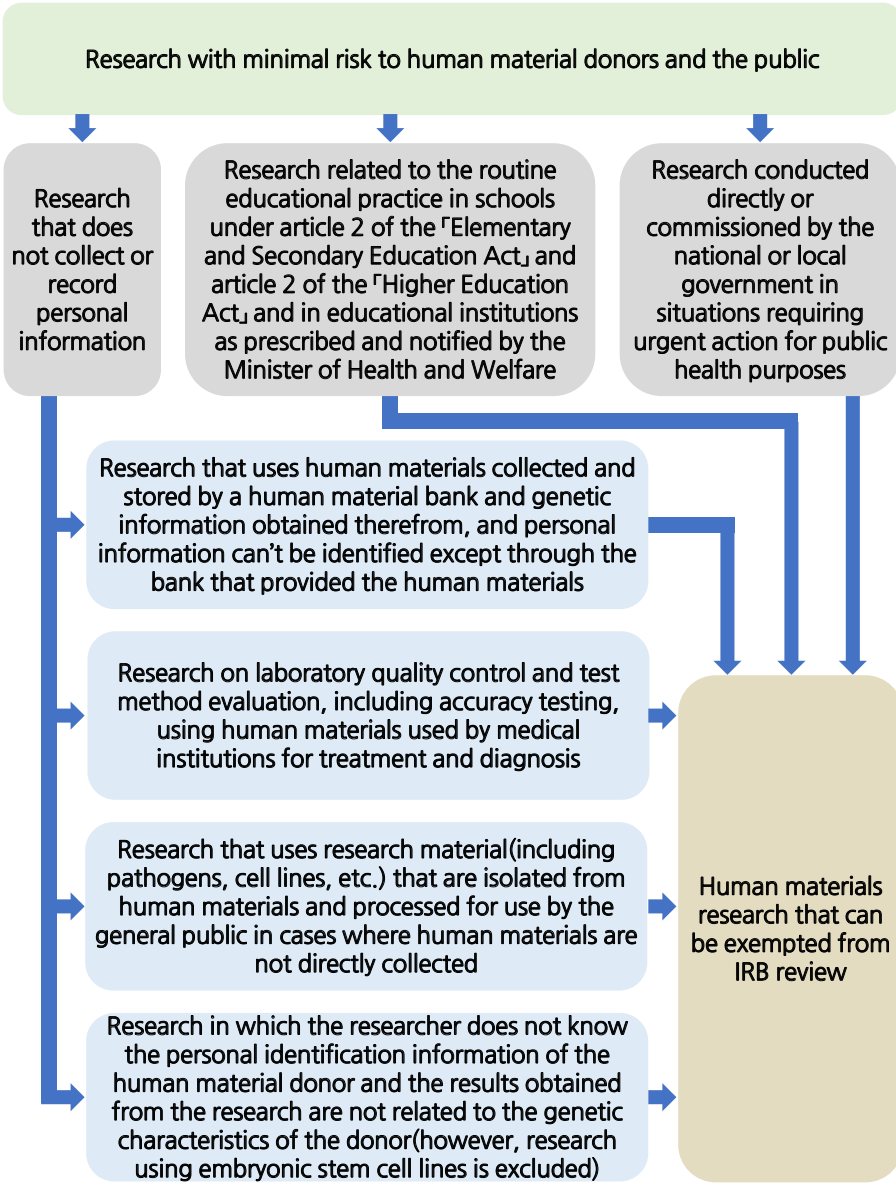
- A standard review procedure, which is a method of review that occurs at regular meetings
- The Ewha IRB has multiple panels, and regular meetings are held monthly by each IRB panel.
- Approval is determined by a majority vote of the members present at the meeting.

Expedited review

- An exceptional review procedure, which is a review that occurs on a rolling basis outside of regular meetings
- The Ewha IRB determines whether expedited review is available for research that is not investigator-selectable and that is below minimal risk.
- Decisions are made by consensus of appropriately experienced and qualified expedited reviewers.

4-6. Flowchart for IRB review exemption




Research with minimal risk to human material donors and the public
Research that does not collect or record personal information
Research related to the routine educational practice in schools under article 2 of the 「Elementary and Secondary Education Act」 and article 2 of the 「Higher Education Act」 and in educational institutions as prescribed and notified by the Minister of Health and Welfare
Research conducted directly or commissioned by the national or local government in situations requiring urgent action for public health purposes
Research that uses human materials collected and stored by a human material bank and genetic information obtained therefrom, and personal information can't be identified except through the bank that provided the human materials
Research on laboratory quality control and test method evaluation, including accuracy testing, using human materials used by medical institutions for treatment and diagnosis
Research that uses research material(including pathogens, cell lines, etc.) that are isolated from human materials and processed for use by the general public in cases where human materials are not directly collected
Research in which the researcher does not know the personal identification information of the human material donor and the results obtained from the research are not related to the genetic characteristics of the donor(however, research using embryonic stem cell lines is excluded)
Human materials research that can be exempted from IRB review

4-7. Reference

* Available on the Center for Research Compliance website!
https://my.ewha.ac.kr/ethics

Ethical Guidelines for Researchers

These guidelines include the importance of complying with human subject research ethics, as well as understanding and practicing ethical illegal standards to protect the research subject so that researchers (professors, postdoctoral researcher, graduate students, etc.) conducting human subject research, human materials research can fulfill their responsibilities and obligations in an adequate manner. In particular, these guidelines explain what to consider and how to prepare research review for establishing the research plan.

100 Answers to 100 Questions

This book is comprised of 100 pairs of Q&As selected from many questions inquired on the IRB Portal designated by the Ministry of Health and Welfare. This Q&A encompasses a vast array of topics including the establishment and operation of IRB, research to be reviewed by IRB, exemption of IRB review, management of human materials, informed consent and waiver of informed consent, education, making and preservation of records, etc. Researchers can get help to tackle issues they actually face during research and solve various curiosities and problems.

IRB Research Ethics Guidelines for Researchers in the Humanities and Social Sciences

This book provides comprehensive information for researchers conducting human subject research in the humanities and social sciences such as the concept and scope of human subject research, the basic principles of human subject research, the responsibilities and obligations of researchers, types of IRB review, distinctions between research to be reviewed by IRB and research that can be exempted from IRB review, considerations for developing ethical and scientific research and conducting research.

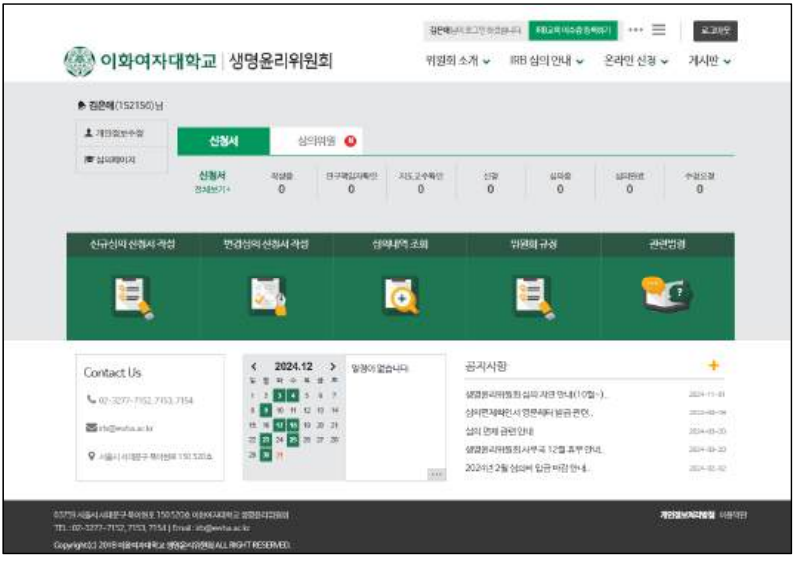
4-8. Useful website

Re-view

Ewha Institutional Review Board(IRB)
https://rc.ewha.ac.kr/irb

This website operated by the Ewha Institutional Review Board allows researchers to submit the research protocols for review and confirm the review results on human subject research, human materials research, embryo research, embryonic stem cell line research, cadaver study.

It contains useful information, resources, and guidelines for researchers conducting human subject research.



Info

Institutional Review Board Portal
https://irb.or.kr

This website operated by the Korea National Institute for Bioethics Policy provides key information on relevant laws, user-tailored information, and various materials related to human subject research, human materials research, embryo research, and embryonic stem cell line research.

5. Complying with animal testing ethics
and protecting laboratory animals

5-1. Key points regarding animal testing and IACUC

Obligations of researchers

- Compassionate care of laboratory animals and facilities
- Protection of laboratory animals and periodic inspection, maintenance, and improvement of facilities
- Conducting animal testing in accordance with animal care and use protocols and compliance details

3Rs principles

- Replacement of animal testing
- Reduction in the number of animals used in testing
- Refinement of test methods

Prohibited practices in animal testing

- No testing on lost or abandoned animals and service animals which is serving or served for people or the country
- Prohibition of dissection practice on animals by minors
- No animal testing or modifications without IACUC approval

Relevant laws and regulations

「Animal Protection Act」, 「Laboratory Animal Act」,
「National Research and Development Innovation Act」,
「Guidelines for Animal Testing」, 「Guidelines for the Management and Operation of Laboratory Animals」

Ewha Institutional Animal Care and Use Committee Regulation

Institutional Animal Care and Use Committee

Consultation on animal testing ethics
Inquiries regarding IACUC review

02-3277-3646 iacuc@ewha.ac.kr

How to apply for IACUC review

Accepted on a rolling basis

After registering in the e-IRB system, submit the required documents online the research protocol,
the researcher's CV, the certificate of education, etc.

5-2. Principles of animal testing

Animal testing shall be conducted in consideration of the enhancement of human welfare and the dignity of animal life.

Before animal testing is conducted, alternative methods shall be considered first.

Animal testing shall be conducted by a person with knowledge of and experience in the ethical handling and scientific use of laboratory animals.

Animal testing shall use the minimum number of animals needed.

When testing that inflicts pain on laboratory animals is to be conducted, animals with low sensory ability shall be used and appropriate measures shall be taken to relieve pain through veterinary methods such as the use of analgesics, sedatives, and anesthetics.

The person who has conducted animal testing shall examine the animal without delay after the testing, and if the examination results show that the animal has recovered normally, the animal may be donated or sold.

After the examination, the animal will not recover or will have to live with continuous suffering, it shall be disposed of promptly in a way that does not cause pain.

5-3. 3Rs principles

Replacement of animal testing

- Complete alternatives
  - ✓ Inanimate systems: using mechanical models, chemical techniques
  - ✓ Computer simulations: useful for safety assessments and training, but limitations for use in research
- Relative alternatives
  - ✓ Biological systems: using microbes or plants, species lower on the phylogenetic tree(invertebrates, such as insects), in vitro techniques such as cell culture or tissue culture

Reduction in the number of animals used in testing

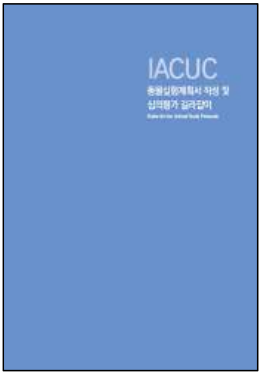
- Choosing reasonably-sized experimental group
- Maximizing the use of animals
  - ✓ Sharing tissues from culled animals with other researchers
- Selecting accurate laboratory animal models
- Minimizing unnecessary losses with proper animal care
- Conducting accurate statistical analysis

Refinement of test methods

- Conducting a pilot study
- Utilizing clinical symptom analysis
- Utilizing clinical pathology
- Using literature review comparative analysis or expert consultation
- Administering pain-relieving medications
- Using non-pharmacological techniques
- Using new diagnostic and therapeutic technologies
- Utilizing the environment enrichment program
- Establishing a humanitarian end point of animal testing

5-4. Reference

* Available on the Center for Research Compliance website!
https://my.ewha.ac.kr/ethics



Guide for the Animal Study Protocols

This guidebook introduces essential information which the researchers conducting an animal testing should know when preparing for an animal testing protocol and receiving review by the Institutional Animal Care and Use Committee. In particular, this guidebook explains what needs to be considered when preparing the animal testing protocol, including the environment of the research institute and the characteristics of the animal testing laboratory, the purpose of the animal testing, and the species of animals to be used.

Standard Operating Guidelines of IACUC

These guidelines are useful for researchers conducting animal testing, which covers the laws related to animal testing, the constitution and operation of the IACUC, the 3Rs principles as criteria for animal testing protocol review, methods to search alternatives to animal testing, selection and calculation of laboratory animals, assessment and control of pain and distress, ways to relieve pain such as the use of analgesics, sedatives, and anesthetics, humanitarian end point of animal testing, euthanasia, and others.

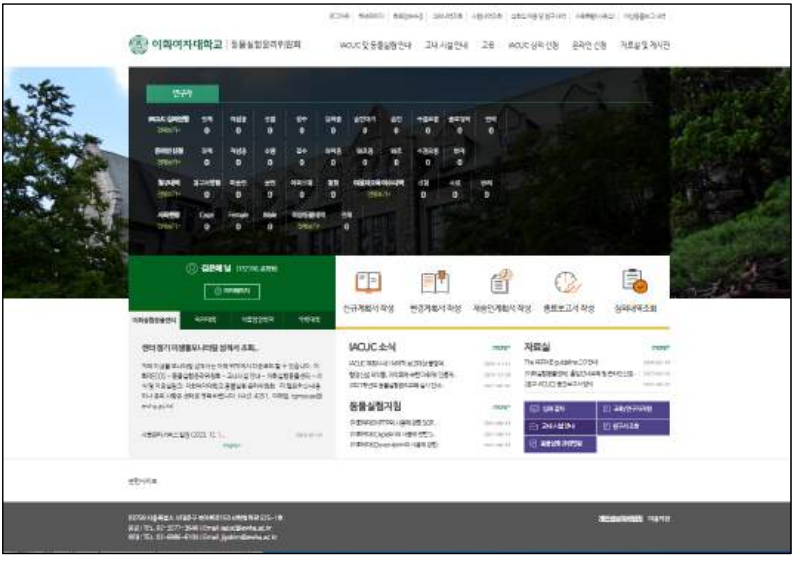
5-5. Useful website

Re-view

Ewha Institutional Animal Care and Use Committee(IACUC)
https://rc.ewha.ac.kr/iacuc

This website operated by the Ewha Institutional Animal Care and Use Committee allows researchers to submit the research protocols for review and confirm the review results on animal testing and view guidelines on animal testing.

It contains useful information, resources, and guidelines for researchers conducting animal testing.



Info

IACUC management system
https://www.animal.go.kr/aec/index.do

This website, operated by the Animal and Plant Quarantine Agency, provides key information on laws related to animal testing, criteria for animal testing protocol review and approval, and various resources.

If you need training on animal testing, you can visit the Government e-learning platform(the so-called, narabaeumteo) for regular and continuing education.

6. Complying with organism research ethics and ensuring biosafety

6-1. Key points regarding organism research and IBC

Concept of biosafety

Ensuring safety for researchers and the research environment in organism research

Assessing human risks of potentially infectious microorganisms

Protecting researchers, communities, and the environment using biological knowledge, experimental techniques, equipment, and facilities, etc.

Fundamentals of biosafety

Ensuring appropriate physical containment

Ability to assess risk of the researcher or research institution

Establish an operational framework for safety management

Compliance of researchers

Completion of biosafety education and training

Compliance with regulation for biosafety management

Reporting research facility anomalies and biosafety incidents to the Principal Investigator

Relevant laws and regulations

「Transboundary Movement, etc. of Living Modified Organisms Act」 and Consolidated notification on transboundary movements of genetically modified organisms,
「Act on the Establishment of Safe Laboratory Environment」

Ewha Institutional Biosafety Committee Regulation

Institutional Biosafety Committee

Consultation on organism research ethics
Inquiries regarding IBC review

02-3277-3646 ibc@ewha.ac.kr

How to apply for IBC review

Accepted on a rolling basis

After registering in the e-IBC system, submit the required documents online, including the research protocol, the researcher's CV, the certificate of education, etc.

6-2. Key points regarding genetically modified organisms

Genetically Modified Organisms & Living Modified Organisms (GMOs) (LMOs)

- Genetically Modified Organisms(GMOs)
  - ✓ Terms commonly used in science and industry
  - ✓ Term used in related act, 「Transboundary Movement, etc. of Living Modified Organisms Act」
  - ✓ An organism that contains genetic material that has been newly assembled using modern biotechnology
  - ✓ Modern biotechnology: artificially recombining genes or injecting nucleic acids comprising genes directly into a cell or organelle within a cell, and cell fusion technologies that go beyond the scope of taxonomic classification

- Living Modified Organisms(LMOs)
  - ✓ A living organism whose genes have been artificially recombined
  - ✓ Recombination: addition, deletion, or repositioning
  - ✓ Implicit in the name itself that it is alive and capable of reproduction and cloning

Development and testing of genetically modified organisms which is highly likely to cause any risk must obtain prior approval by the Commissioner of the Korea Disease Control and Prevention Agency(KDCA)

- Development and testing with micro-organisms that do not have a specified species name and are not known to be hazardous to humans
- Development and testing using genes with the ability to produce proteinaceous toxins at or above the level notified by the Minister of Health and Welfare for vertebrates
- Development and testing using a method that intentionally delivers a drug resistance gene to an organism in a way that does not occur naturally. However, this excludes cases where the Minister of Health and Welfare recognizes and notifies that it is safe
- Development and experimenting with pathogenic micro-organisms that are notified by the Minister of Health and Welfare as necessary for national management for public health
- When conducting experiments involving environmental release, such as field experiments
- Development and experimenting with genetically modified organisms recognized and notified as having a high potential for harm by the head of the competent national authority after deliberation and review by the Biosafety Committee under the jurisdiction of the Minister of Trade

Obtain prior approval by the Commissioner of the KDCA for the development and testing of genetically modified organisms

- Documents to be submitted to the Commissioner of the KDCA to obtain approval
  - ✓ Application for authorization to develop and test genetically modified organisms
  - ✓ Protocol for the use of genetically modified organisms for the investigational research: may be substituted for the research and development Protocols
  - ✓ Risk assessment data for development and testing
  - ✓ Summary of additional materials: a summary of the materials that are submitted as references
  - ✓ References: materials published in professional journals, materials tested according to Good Laboratory Practices(GLP), materials tested by domestic and foreign professional organizations such as universities or research institutes, and materials that are issued by the head of the institution and can be recognized as valid after reviewing the contents (outline of the research institution, major facilities, composition of the research personnel, the research experience of the investigator, etc.)
  - ✓ Research facility installation and operation report confirmation/permit, etc.

- Direction of review by the Commissioner of the KDCA
  - ✓ Risk of harm with the development and testing of the proposed genetically modified organism, suitablility of the application, and appropriateness of the development and testing protocol

Compliance of researchers who develop and test genetically modified organisms

- Development and testing must be approved by the Commissioner of the KDCA and the Ewha Institutional Biosafety Committee.

- The following modifications of the protocol that has been approved by the Commissioner of the KDCA and the Ewha Institutional Biosafety Committee must be re-approval by them.
  - ✓ To change or add donor organisms, transgenes, hosts, or gene introduction methods
  - ✓ To make major modifications that affect the risk of an approved experiment, such as the scope of the experiment, experimental procedures, research facilities, or experimental personnel
  - ✓ To use genetically modified organisms that were produced unintentionally in the course of an approved experiment within the scope of the approved experiment

- The following modifications of the protocol that have been approved by the Commissioner of the KDCA and the Ewha Institutional Biosafety Committee must be reported to them.
  - ✓ Minor changes, such as changes in the name, address, or contact information for the applicant, the principal investigator, or the biosafety officer.

- A handling and management log must be completed for genetically modified organisms for testing and research developed after approval for development and testing.

6-3. Basic rules for biosafety at laboratory

1. Lab doors shall always be closed and research facilities are accessed only by authorized personnel.
2. Access logs shall be put in lab doors to record and control access.
3. Personal protective equipment (lab coat, etc.) shall be ready at labs for appropriate use.
4. Attach biosafety labels stating the name of GMO, biosafety level, facility manager's name and contact information in front of the lab door.
5. Perform experiment only at designated areas, and wash/disinfect exposed body parts (e.g. hands) after an experiment and when leaving the lab.
6. Wear lab coat at experiment areas, and take off the lab coat when moving to general area. Prevent hazard factors from being exposed outside by cleaning the lab coat with equipment placed within experiment areas.
7. Use mechanical equipment such as micropipettes and pipette aids. Classify pipettes treating infectious materials, and when used, decontaminate by disinfection and discard them.
8. When treating pathogens and flammable materials, minimize the spread of aerosols and prevent from exposure to outside.
9. Do not store or eat food, smoke, wear makeup at experiment areas.
10. Do not carry in items irrelevant to an experiment (e.g. plant & animal, clothes, etc.).

11. When carrying in and out infectious materials, they shall be put in and transferred inside a closed container to prevent exposure.

12. Prepare control plans for organisms which can be introduced from outside (e.g. insects, rodents).

13. When contamination occurs during an experiment and disinfect immediately. Disinfect lab tables after an experiment. If there are exposures during an experiment, inform the head of experiment area and peers to take appropriate measures.

14. Set control plans on sharp tools such as syringe needles. Refrain from using sharp tools when there are safe and effective alternatives.

15. Attach "Biohazard" label on refrigerators and freezers where GMOs are stored. Labels shall also be attached to incubators and biosafety tables that treat GMOs.

16. Receive training on lab safety before performing experiment. All personnel involved in GMO testing/research shall complete legally mandated training every year.

17. Personnel involved in GMO test/research shall write and keep records on facility management and operation.

18. When infection occurs during an experiment, perform investigation. A report shall be prepared, kept, and submitted to the IBC.

19. Open containers which contain infectious materials at the biosafety table.

20. Perform injection when there are vaccines available for pathogens to be treated.

21. If necessary, sample and keep serums of personnel involved in test/research on a regular basis. This is to swiftly verify infection and receive appropriate treatment. In addition, personnel shall receive medical examination.

22. All wastes from experiment shall be discarded according to how they should be discarded. Keep a record of the waste disposal.

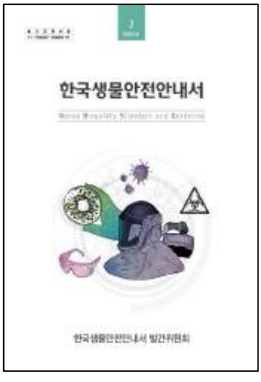
23. All GMO-related wastes from experiments shall be biologically deactivated before discarding.

6-4. Reference

* Available on the Center for Research Compliance website!
https://my.ewha.ac.kr/ethics

Guidelines on Biosafety at Laboratory

These guidelines cover information on the Ewha Institutional Biosafety Committee, principles and implementation of biosafety, review of biosafety protocol, basic principles of biosafety at laboratories, response and emergency measures in case of biosafety accidents at laboratories, treatment of personal protective equipment and testing equipment, disinfection and sterilization, control of medical wastes, and other appendix. These guidelines provide helpful information on independent planning and operation of a laboratory biosafety management system.



Korea Biosafety Standard and Guidelines

This book includes generalities of biosafety such as biological risk assessment, fundamentals and procurement strategies of biosafety, biosafety and GMO, legal systems related to biosafety and more. In particular, this book serves as the easiest and most precise manual for not only rising researchers, but also professors, undergraduates, and graduates, introducing research facility management and methods for securing biosafety, biosafety equipment, personal protective equipment, safe management of infectious materials, biosafety guidelines at the lab, emergency plans and response procedures, and more.

Guidebook on Composition and Operation of IBC

This guidebook introduces researchers' tasks to be reviewed and prepared before applying for biosafety review. This guidebook encompasses general aspects of biosafety, including FAQs, references on the scope of exempted experiments, the need for receiving review by IRB and IACUC other than IBC for human-animal research, review criteria on biosafety of genetic recombination experiment, and IBC.

Guidebook on Safe Control of GMOs

This guidebook states the information required for researchers to safely control GMOs, including the concept and definition of GMOs, import of GMOs for research and approval of development and experiment, reporting and authorization of research facilities, risk assessment for safety management, and other detailed procedures.

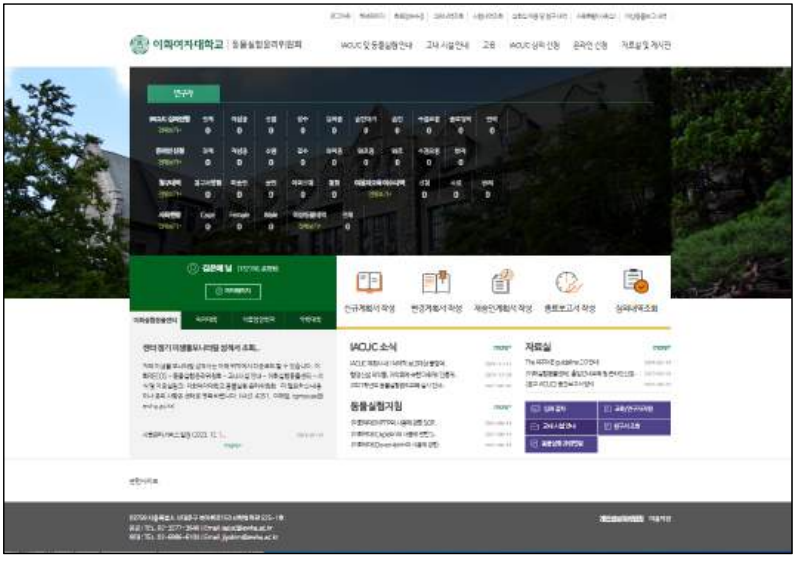
6-5. Useful website

Re-view

Ewha Institutional Biosafety Committee(IBC)
https://rc.ewha.ac.kr/ibc

This website operated by the Ewha IBC allows researchers to submit the research protocols for review and confirm the review results on organism research, reporting procedures on GMO research facilities & import and export.

It contains useful information, resources, and guidelines for researchers conducting organism research.



Info

National Research Safety Information System
https://www.labs.go.kr

This website operated by the National Research Safety Management Headquarters of Korea Research Institute of Bioscience and Biotechnology provides various information, materials, and training on laboratory safety and LMO for research.

Info

LMO Information System for Test & Research
https://www.lmosafety.or.kr

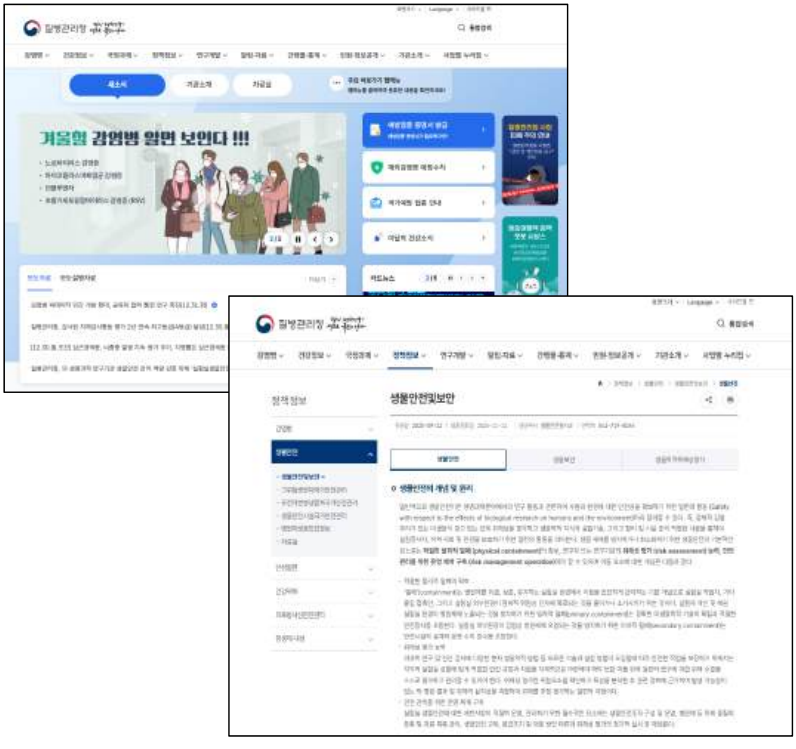
This website operated by the National Research Safety Management Headquarters of the Korea Research Institute of Bioscience and Biotechnology offers various information, data, and training on LMO for test and research.

Info

Korea Disease Control and Prevention Agency
https://www.kdca.go.kr

This website operated by the Korea Disease Control and Prevention Agency offers information on biosafety and biosecurity, selected agents, LMO related to biosafety.

In particular, the Biosafety and Security Section of the Policy Information Corner provides information on biosafety and security, national safety management of high-risk pathogens and GMOs, and more.



7. Preventing and managing conflicts of interest

7-1. Key points regarding conflicts of interest

Concept of conflicts of interest

A set of conditions under which the primary interest, that must always be considered or prioritized in making professional decisions, is, or is likely to be, unduly influenced by the secondary interest

Types and examples of conflicts of interest

Financial conflicts of interest

When a researcher gains financial interest other than research funding, such as wage, compensation, consulting fee, gifts, lecture fees, academic association attendance fee, shares, stock options, intellectual property rights or others.

Professional conflicts of Interest(conflicts of roles)

When researchers neglect research due to confusion of priorities as they are involved in various non-research roles such as training, lecture, consultation, venture, volunteering, and other external activities.

Conflicts of interest related to personal relationships

When researchers exercise inappropriate influence by abusing their status and providing invitations to research, distributing of research resources, granting authorship to their families, friends, or those in conflictive relation.

Academic conflicts of interest

When the confidence in what researchers believe on the theory, or their religious, philosophical, moral values triggers prejudice or hinders objectivity and rationality.

Purpose of prevention and management

Prevent of a hindrance to objectiveness and integrity related to the research (Prevent from unethical matters in advance)

Prevent of negative impact on researcher and the university (Gain reliability in social & academic aspect)

Method of prevention and management by researchers

Disclose conflicts of interest as researcher to the affiliated institution as well as IRB, IACUC, IBC

Minimize or eliminate existing conflicts of interest

Method of prevention and management by institution

Educate on the importance of preventing and managing conflicts of interest

Establish methods and procedures for disclosing conflicts of interest

7-2. Persons in special connections in research

Types and examples of persons in special connections

- Minors under the age of 19
  - ✓ Children of an acquaintance, participant of R&E program, others
- Family members of the researcher
  - ✓ Spouse, sons & daughters, parents, brothers & sisters

Things to consider about persons in special connections

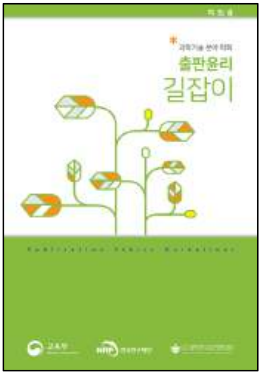
- Before initiating the research, the principal investigator must disclose to the affiliated institution and co-investigators that persons in special connections will participate in the research, and they must verify that persons have joined the research for academic or thesis purpose.
- Record and keep all information, data, know-how and others that persons in special connections have gained in the course of the research on the research note and keep it in an orderly manner, and check and manage the access of persons in special connections to the laboratory.

When publishing a joint paper with persons in special connections

- Check whether persons in special connections are entitled to be listed as authors when submitting a paper: document the contributions of the affiliate according to each step(planning research, conducting research, drafting the paper, confirming of the final paper), have them checked by all other authors, and submit supporting documentation.
- Notify the affiliated institution and relevant academic associations of persons in special connections' participation when submitting the paper: the same procedure applies to attendance at research meetings.

7-3. Reference

* Available on the Center for Research Compliance website!
https://my.ewha.ac.kr/ethics



Guidebook on Publishing Ethics

This guidebook suggests various ways and cases to solve each conflict of interest by categorizing into financial conflicts of interest, conflicts of interest related to personal relationship, academic conflicts of interest, clinical conflicts of interest, and conflict of roles. In particular, this serves as the easiest and most precise manual for not only junior researchers, but also professors, undergraduate and graduate students, introducing only the core concepts of research ethics and verification of research integrity, establishing research integrity at each stage of research, and more.

Guidebook on Research Ethics

This guidebook categorizes and defines conflict of interest into financial, duty, personal and intellectual conflict of interest according to the cause of conflict, and provides detailed cases of conflict.
In particular, readers can gain a broader view on the generalities of conflict of interest from detailed explanation on laws related to conflict of interest, reasons why conflict of interest should be prevented and controlled, and the roles and responsibilities of research institutes and researchers in preventing and managing conflict of interest.

A Guide for Faculty to Ensure Research Ethics in Tech Entrepreneurship

This book addresses a variety of research ethics issues, including conflicts of interest between faculty, universities, graduate students, and companies as the number of faculty startups increases. The book presents the three values of research ethics for faculty entrepreneurship, which are the values or norms that faculty members who become both faculty members and executives of start-up companies should practice while pursuing economic benefits through entrepreneurship.

Handbook for University Researchers: Preventing Conflicts of Interest

This handbook explains the types of conflict of interest into financial, personal, duty, and intellectual conflict of interest, and suggests various solutions and cases for each type of conflicts.
Professors, undergraduates, and graduates can all find this handbook helpful, as it will guide them through conflict of interest cases with questions and answers in an easy and precise manner.

8. Complying with academic exchange ethics

8-1. Key points regarding academic exchange

Concept of academic exchange

For the development of academics, academic exchange should be about communicating not only with researchers, research institutes, and academic associations, but also with the general public. Academic exchange is mainly used as a term for the publication and presentation of research results in academic journals or at academic conferences.

Characteristics of predatory journals and conferences

- Focus on economic gain rather than academic exchange
- Excessively exaggerates authority and reliability
- Peer review is inadequate and not properly conducted
- Engages in aggressive and unscrupulous marketing
- Opaque operating entity and inappropriate fee charging
- Lack of expertise, with no focus on specific academic field

How to identify excellent journals

Search for profile of scholars or researchers highly respected in the academic circle

Consult with a librarian

Check the journal impact factor(IF)

What to do after submitting to a predatory journal

Request the withdrawal of the submission

Refuse to pay manuscript review fees or publication fees

Share information with colleagues about how the situation was identified and the issues involved to prevent a recurrence

What to do after attending a predatory conference

First, focus on excelling in your academic work and collect evidence of your academic activities, such as photos and conference details

Share information with colleagues about how the situation was discovered and the issues involved to prevent a recurrence

8-2. Types of contributors to predatory journals or conferences

Naive contributors

- The academics are either inexperienced, unassuming, or naive.
- They are unaware of being targeted by predatory journals or conferences.
- They exhibit an incidental characteristic, believing their work was selected for its merits and legitimately peer-reviewed.
- Inexperienced academics may be tempted to turn to questionable journals after being rejected by high-caliber journals.
- Upon realizing they have fallen victim to a predatory publication or conference, they often experience regret, dissatisfaction, and even embarrassment, recognizing the damage to their reputation and the disadvantages incurred.

Cognizant contributors

- They either currently work in or aspire to pursue careers in academia or scientific fields.
- They are aware that the publications or events lack credibility, yet they choose to ignore it.
- They appear to be compelled by the need to boost the number of presentations or publications on their CVs to secure employment or promotion.
- They may also consent to having their names listed on organizing committees or editorial boards of predatory journals to enhance their CVs.

Pseudo-scientists

- Their awareness of the questionable nature of the conference or publication is less relevant, as they may themselves hold dubious qualifications or misguided beliefs about what constitutes proper scholarship or research.
- While they may claim to be researchers, they are unlikely to have credible academic positions or significant research achievements.
- They exploit questionable conferences and publications to justify their unverified claims, research findings, or unreasonable theories.

8-3. Spectrum of predatory journals

8-4. Checklist before attending conference

Have you ever heard of this conference before?	☐ Yes ☐ No
Is the entity organizing or hosting the conference clearly presented, and is it professional and reliable?	☐ Yes ☐ No
Are the website, email address, and other conference-related information publicly accessible and credible?	☐ Yes ☐ No
Is information about past conferences recorded and publicly available on the website?	☐ Yes ☐ No
Has this conference ever been attended or presented at by your colleagues, seniors, juniors, or professors?	☐ Yes ☐ No
Compared to other conferences, is this the most suitable conference to attend or present at?	☐ Yes ☐ No
Are the academic field and goals of the conference aligned with your research area?	☐ Yes ☐ No
Is clear information about the conference provided, such as the program(especially speakers and instructors), schedule, and location?	☐ Yes ☐ No
Is the conference venue suitable for academic exchange?	☐ Yes ☐ No
Is the promotion of conference attendance appropriately focused on academic exchange?	☐ Yes ☐ No
Did the conference recognize your expertise and offer you a presentation through a formal process?	☐ Yes ☐ No
If you request a speaking opportunity, does the conference verify and approve speaker's CV, presentation topic and content, etc.?	☐ Yes ☐ No

8-5. Reference

* Available on the Center for Research Compliance website!
https://my.ewha.ac.kr/ethics

Guidebook to Avoid Predatory Journals and Questionable Conferences

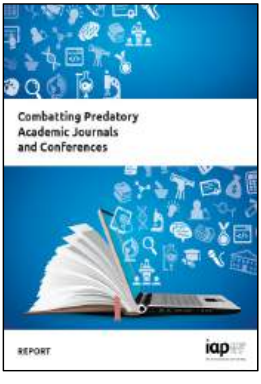
This guidebook explains researchers in detail about the characteristics of predatory journals and associations, as well as ways to find out how to publish one's paper in which journal and check whether an academic association is worth questioning. This guidebook recommends researchers find out whether it is worth their time and money and how will their reputation be influenced by selecting the best academic journals and associations.

First Step towards Ethical Research for New Researchers

This book introduces specific ways to deal with cases when submitting or participating in poorly managed journals and associations, as well as explaining their characteristics. In particular, this book serves as the easiest and most precise manual for not only rising researchers, but also professors, undergraduates, and graduates, introducing only the core concepts of research ethics and verification of research integrity, establishment of research integrity per stages of research and more.

Preventing the Use of Questionable or Predatory Journals

This report includes the causes, extent, and harms of fraudulent journals, the characteristics and risk classification of fraudulent journals, a list of fraudulent journals, the debate about MDPI and fraudulent journals, the experiences and perceptions of researchers from around the world and Korea about fraudulent journals, and how to prevent the use of fraudulent journals.



Combating Predatory Academic Journals and Conferences

This report was produced by the International Federation of Korean Foresters to prevent researchers from being victimized by fraudulent journals and conferences, and ultimately to eliminate them. It provides a revised definition of fraudulent journals and conferences to replace the previous definition of fraudulent journals and conferences, as well as new tools to determine whether a journal or conference is such a journal or conference.

8-6. Useful website

Info

Scholarly ecosystem Against Fake publishing Environment (SAFE)
https://safe.koar.kr

This website operated by the Korea Institute of Science and Technology Information allows users to learn about the definition of doubtful journals, its characteristics, and checklist, search for academic journals per types of OA, information on publishing and others through filtering, search for journals poorly managed academic events by filtering with source, year when the event was held, which country the event took place and others, request data to search for poorly managed academic journals and associations, and request for review of academic journals and associations

9. Creating a sound laboratory culture

9-1. Key points regarding a sound laboratory culture

Concept of healthy laboratory culture

All members of the lab are respectful, considerate, communicative, supportive, and cooperative.

All members foster a sense of community, creating sustainable research outcomes, and excellent researchers.

Protecting researchers' rights

- Prevent rights infringement
- Non-discrimination

Building harmonious mutual relationship between researchers

- Building trust
- Conflict management

Strengthening communication within the laboratory

- Goal-oriented communication
- Regular & open communication

Protecting the safety and health of researchers

- Create a safe environment
- Settle & embrace safety culture

Prevent rights infringement

- Prohibit sexual harassment, sexual abuse, wrongful use of power, molestation, violence, intimidation, abusive language, insulting, slander, ordering non-research work, collective bullying, intentional contempt/ exclusion, ordering irrelevant and repetitive work, assigning excessive workload, interfering seamless operation of work

Non-discrimination

- Prohibit discrimination based on factors related to a person's dignity and values, including gender, age, religion, place of origin, race, ethnicity, marital status, sexual orientation, pregnancy, childbirth, breastfeeding, childcare, family life, and other aspects

Building trust

- When researchers exercise inappropriate influence by abusing their status and providing invitations to research, distributing of research resources, granting authorship to their family, friends, or those with whom they have conflicting relationships

Conflict management

- Conflict in the laboratory not only has a negative impact on the researchers' feelings, but can also lead to weaker research capability as a whole.
- Therefore, every role and relationship should be clarified, agreed in advance, and establish and adhere to the principles for stronger teamwork.

Goal-oriented communication

- The principal investigator should share the philosophy of research, the direction and purpose of research, the ideal aspects of the researcher, etc..
- The principal investigator should guide researchers based on trial and error and encourage research based on creative ideas as well as challenging research.

Regular & open communication

- Communicate actively and frequently by holding regular & occasional meetings to review research performance, adjust research directions, etc.
- Free expression of opinions and communication should be led by all members of the laboratory, rather than orders made by the principal investigator and reported by researchers

Create a safe environment

- Conduct laboratory safety inspection and precise safety examination
- Set and implement a safety system tailored to laboratory conditions
- Prepare safety control facilities
- Provide laboratory safety training to researchers

Settle & embrace safety culture

- Perform safety measures regularly in the laboratory
- Researchers exposed to hazard factors shall receive regular medical examination for health checkup
- Set and carry out safety plan and emergency measure protocols by analyzing hazard factors in advance

10. Introduction to research ethics education and promotion program (Research Ethics GOGO Program)

10-1. Key points regarding Research Ethics GOGO Program

Purpose of the program

A program operated as part of the University Innovation Support Project to promote the understanding and practice of research ethics for professors, researchers, undergraduate and graduate students, etc.

Developing research ethics guidelines

The current Ewha Research Ethics Guidelines reflect the requirements of the 「National Research and Development Innovation Act」 and other relevant laws.

Educating research ethics

Provide real-time training centered on securing research integrity (prohibition of research misconduct), human subject research, animal testing, biosafety, etc.

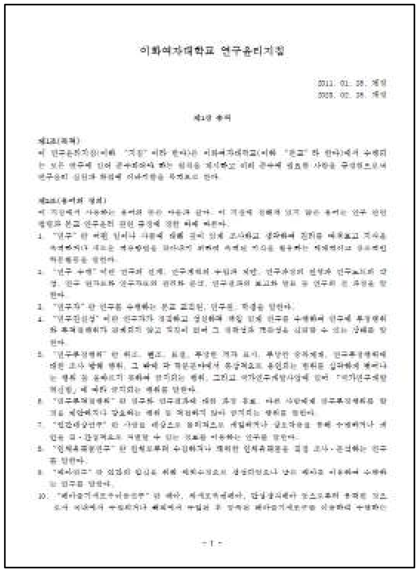
Promoting research ethics

Publish a research ethics newsletter once a month
and
produce and distribute various materials to promote research ethics.

10-2. Ewha Research Ethics Guidelines

The Research Ethics Guidelines were established by Ewha Womans University in January 2011 and were revised in February 2023 to ensure that researchers comply with research ethics.

The Research Ethics Guidelines consist into six chapters and can be found in the information section of the Center for Research Compliance's website.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Chapter 1

General rules

Chapter 2

Roles and responsibilities of the university and others

Chapter 3

Upholding research integrity and prohibiting research misconduct

Research Integrity Committee(RIC)

Chapter 4

Complying with human subject research ethics and protecting research subjects

Institutional Review Board(IRB)

Chapter 5

Complying with animal testing ethics and protecting laboratory animals

Institutional Animal Care and Use Committee(IACUC)

Chapter 6

Complying with organism research ethics and ensuring biosafety

Institutional Biosafety Committee(IBC)

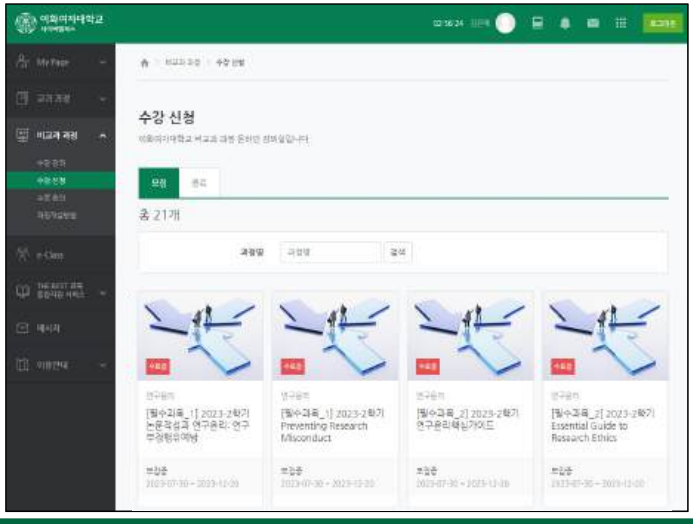
Chapter 7

Others

Conflicts of interest, academic exchange, laboratory culture

10-3. Online lecture on Ewha Cyber Campus

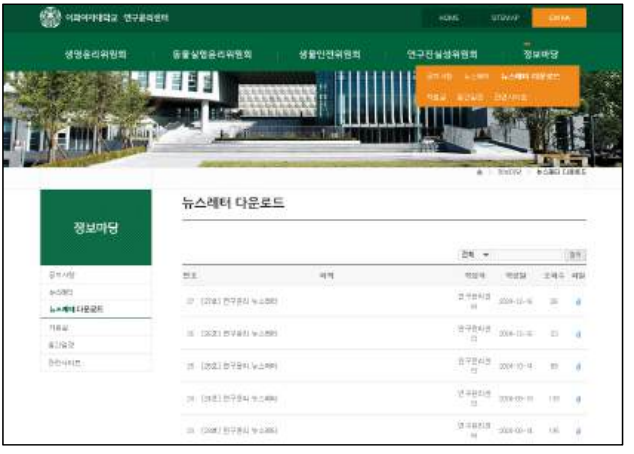
For faculty and students of our university, as well as many other members seeking research ethics education, a variety of online courses are offered on the Cyber Campus, and a certificate of completion is issued upon finishing the courses.



Mandatory courses (in English)	• Preventing Research Misconduct • Essential Guide to Research Ethics
Elective courses (in Korean)	• Research note • IRB and the review of research • Human subject research and protecting research subjects • Human materials research • Complying with cadaver research ethics and respecting donor's and bereaved families • Non-compliance • Real cases of human subject research and responses to the problems • Animal testing ethics and protecting laboratory animals • Interim online training for new researchers

10-4. Ewha Research Ethics Newsletter

Since October 2022, the Center for Research Compliance
has been publishing a research ethics newsletter on the 15th of every month.
All the newsletters published can be viewed and downloaded
from the information section of the Center for Research Compliance's website.



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