COMMITTEE ON ETHICS IN SCIENCE

CODE OF ETHICS FOR RESEARCHERS

Fourth Edition

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Preamble

Science is a collective endeavor that comprises scientific research – understood as the systematic pursuit of knowledge and understanding through the acquisition of information, reflection, observation, and experimentation – as well as the education of new generations of researchers. Irrespective of the distinct methodologies of individual scientific disciplines and the various organizational frameworks in which research and education take place, science can only advance through researchers' commitment to ethical ideals and values such as respect for human dignity, freedom, equality, integrity, truthfulness, reliability, and the fulfillment of commitments. These ideals and values shape the selection of research topics, the formulation of hypotheses and theories, the collection of data, and the application of research methods. Researchers' dedication to the ethical ideals and values of science, along with the organizational and institutional solutions built upon those ideals and values, safeguard researchers' independence from pressures exerted by research funders and ideological, economic, or political interest groups.

Maintaining high standards in science and ensuring a fair assessment of scientific achievements are essential not only for the integrity of science itself but also for its societal credibility and recognition. Ensuring the credibility of scientific activities and their results, and resisting external pressures, fosters public trust in researchers, whose fundamental mission is the pursuit of knowledge and understanding – principles that guide the initiation and conduct of scientific research.

CHAPTER I

Ethical Values and Principles of Scientific Work

§ 1.

Ensuring the integrity and credibility of science is a duty for representatives of all scientific disciplines. Adherence to the principles and values that underpin science should be required of all researchers and all institutions that conduct research, fund scientific activities, disseminate, present, and publish research findings, implement research results, as well as those involved in organizing scientific life – both in their interactions with one another and in their relations with the broader society.

§ 2.

The fundamental values and principles of scientific work:

1) integrity in presenting the objectives and intentions of planned or ongoing research, in describing research methods and procedures, in interpreting results obtained, and in providing information about potential risks and justified expectations regarding the benefits and possible applications of the findings;
2) honesty in the conduct of research, critical assessment of results, meticulousness, attention to detail, and accuracy in presentation of research findings;
3) objectivity, i.e., formulating interpretations and conclusions based on reasoning that incorporates data that can be verified by other researchers within the same discipline;
4) independence from political, ideological, philosophical, and economic pressures, as well as from the influence of entities commissioning research or expert opinions;

5) openness in discussions with other researchers regarding one's own work, including through the publication of research findings, education, and reliable dissemination of knowledge to society;
6) transparency in scientific documentation, so as to ensure accessibility of data after the publication of research results;
7) responsibility towards research participants and subjects; research involving humans or animals may only be conducted if it is the sole means of acquiring knowledge which is of significant societal value and must always be pursued with respect for human dignity and the well-being of living beings, following approval of the appropriate research ethics committee;
8) accountability for the socio-economic and environmental consequences of scientific conclusions;
9) impartiality, honesty, and integrity in evaluating the work of other researchers, as well as in reviewing and recognizing their scientific achievements, as demonstrated through proper citation and acknowledgment of authorship;
10) refraining from using one's scientific authority to make statements outside one's area of expertise;
11) courage in opposing views that contradict current scientific knowledge and in rejecting practices that violate principles of scientific integrity;
12) commitment to future generations of researchers, demonstrated by respect and fair treatment of colleagues, openness toward those seeking academic advancement, providing substantive support within one's discipline, and introducing them to ethical standards and principles of scientific integrity;
13) refraining from the misuse of one's position, role, or hierarchical relationships – through actions such as harassment, discrimination, or sexual misconduct – to gain unwarranted personal or professional benefits.

CHAPTER II

Good Practices in Scientific Research

§ 3.

Good practices in scientific research encompass detailed guidelines for the conduct, presentation, and evaluation of research and its results in accordance with the ethical values and principles of scientific work.

§ 4.

The responsibility to promote, disseminate, and implement good research practices lies with the scientific community as a whole, as well as with scientific institutions and governmental and non-governmental organizations operating in the field of science. Entities sponsoring research and scientific publishers also have an obligation to promote good research practices.

SECTION 1

Research Data Management

§ 5.

All original source data, i.e., all primary research results that form the basis for scientific conclusions (research findings), as well as samples or materials obtained during research, must be documented and archived in a manner that prevents them from being tampered with and ensures their accessibility after the publication of research results, for a period of time appropriate for the relevant scientific discipline.

§ 6.

Access to research data should be as open as possible, with restrictions limited to the necessary extent. Where applicable, data access should comply with the FAIR principles (Findable, Accessible, Interoperable, and Reusable). Concealment of research data or results is permitted only in cases provided for by law or justified by the legitimate interests of the funder or employer.

§ 7.

Data, metadata, protocols, code, software, and other research materials constitute legitimate and citable research outputs. Researchers, as well as research institutions and organizations, have an obligation to provide transparent information on how to access and obtain permission to use research data, metadata, protocols, code, software, and other research materials.

§ 8.

Researchers and research institutions and organizations must ensure that any agreements or contracts related to research findings contain fair and reliable provisions regarding their use and protection, respecting intellectual property rights.

§ 9.

Researchers, institutions and research organizations conducting research involving human participants are required to protect personal data in accordance with the principles of the General Data Protection Regulation (GDPR). In particular, researchers and institutions must inform research participants about the type and scope of personal data collected, how it will be used, the duration of storage, the principles and purposes of potential reuse, as well as the conditions for sharing, storing, and deleting the data.

SECTION 2

Conduct of Scientific Research

§ 10.

All empirical research must be preceded by an analysis of the associated risks and the potential impact that the research results may have on individuals, society, or the environment.

§ 11.

All research should be conducted with clearly defined objectives that are achievable according to the criteria adopted in a scientific discipline. When applying for research funding, realistic research goals should be formulated; throughout the research process, every effort should be made to achieve these goals, ensuring integrity in the presentation of results.

§ 12.

Research involving human participants must be conducted with respect for human dignity and should protect the autonomy of each participant, ensuring that their participation is voluntary.

§ 13.

It is a prerequisite for the conduct of research involving human participants that informed consent must be obtained from the prospective participant (or their legal representative) to take part in the study, and their right to withdraw their consent at any time without suffering negative consequences must be respected. For participants who are minors, assent to participate must be obtained in a manner appropriate to their age and maturity.

§ 14.

Living organisms of all forms, the natural environment, and cultural artifacts that are the subjects of research must be treated with due respect and care.

§ 15.

No person involved in research, including collaborators and individuals not directly associated with the research, may be exposed to risks that endanger their health and safety.

§ 16.

The use of artificial intelligence-based tools in research must be clearly identified in research reports or related publications, in a way that distinguishes independently produced material from results that have been obtained using such tools. Researchers who decide to make use of such tools are responsible for their choice and for ensuring compliance with the principles of intellectual property protection, data privacy, and research ethics.

§ 17.

Researchers are obliged to manage research funds responsibly and efficiently and to account for them accurately.

§ 18.

The persons or entities that commission or sponsor research must be informed of the ethical and legal obligations placed on researchers, as well as the resulting limitations.

§ 19.

A researcher is required to notify their employer if research results indicate the possibility of events that could be dangerous to human or animal health or life, or the environment.

SECTION 3

Authorship and Publishing

§ 20.

Researchers have an obligation to publish the results of their research. Published works must be reliable, transparent, and precise, providing a detailed description of the research methods and tools used (including the use of external services or artificial intelligence, if applicable) to ensure that other researchers can replicate the study.

§ 21.

Researchers have an obligation to adhere rigorously to intellectual property rights.

§ 22.

A person is an author or co-author of a publication only if they simultaneously meet all three of the following conditions:

1) They have made a significant contribution to the research concept or project, or have collected, analyzed, or interpreted data obtained during the study;
2) They have drafted or significantly contributed to writing the first version of the scientific paper, or have critically analyzed the intellectual content of the manuscript;
3) They have approved the final version of the text before submission for publication.

§ 23.

Securing research funding, providing access to research equipment and training on its use, collecting data without substantive involvement, or overseeing administrative aspects of a research group do not constitute grounds for being credited as a co-author of a scientific achievement or publication. Holding a managerial position within a research institution or its subdivision does not

constitute justification for being credited with co-authorship of publications produced by subordinate researchers.

§ 24.

All co-authors share responsibility for the integrity of the research and the publication, as well as for ensuring compliance with ethical standards regarding research conduct and authorship attribution, unless they have agreed otherwise (e.g., that each author is accountable only for specific aspects of the research within their expertise). It is recommended that when authors' affiliations are listed, the nature of their specific contributions be clearly stated.

§ 25.

If artificial intelligence tools are used to prepare a publication or its parts (e.g., the abstract), the authors must include an appropriate disclosure in consultation with the journal or publisher. The use of AI tools is permissible only if intellectual property rights are fully respected.

§ 26.

Where possible, a co-authored publication intended as the basis for seeking an academic degree or title should contain a clearly designated, independently written section or be structured in a way that allows for the precise evaluation of each co-author's specific contribution to the publication.

§ 27.

The order of the names of a publication's authors should be in keeping with the conventions of the relevant scientific discipline and must be agreed upon by all co-authors. The intellectual contributions of individuals who are not listed as co-authors but have significantly influenced the research should be appropriately acknowledged.

§ 28.

Republishing the same work (or substantial parts thereof) is permitted only with the consent of all co-authors, and the editorial board of the journal or

publisher where the work was originally published, for secondary publication, and with full bibliographic details of the original publication.

§ 29.

It is unacceptable to artificially inflate one's scholarly achievements by republishing the same scientific work under different titles or by unnecessarily splitting up material that could be presented in a single paper into multiple separate publications. Works that are closely related in terms of content or scope should be considered a single part of an author's body of work.

§ 30.

The principles of proper citation of other authors' works must be strictly followed in publications. Unjustified self-citation or citing of works that are not substantively relevant to the publication should be avoided.

§ 31.

Any financial support received, as well as other forms of assistance, must be properly acknowledged.

SECTION 4

Education of Young Researchers and Students

§ 32.

Researchers who serve as educators must treat students with respect as autonomous individuals and partners.

§ 33.

Entrusting academic supervision over individuals preparing diploma theses or doctoral dissertations should be handled with particular care by the designated individuals or committees within the research institution authorized to provide such kinds of education.

§ 34.

Researchers serving as academic supervisors must have the necessary expertise to properly oversee research projects, as well as the ethical competence required to foster interpersonal relationships based on respect and in accordance with the values and principles of scientific ethics.

§ 35.

Researchers who act as academic supervisors have an obligation to fulfill their responsibilities with integrity, in particular to ensure that the research conducted under their guidance meets the required scientific standards and that the resulting work does not include unauthorized borrowings from other sources. They also share responsibility for any violations of intellectual property rights or the principles and values of scientific ethics committed by those under their supervision.

§ 36.

A research supervisor must not use their knowledge, position, or any advantage over an individual preparing a diploma thesis or doctoral dissertation to gain personal advantage. Supervisors are obligated to adhere to best practices in scientific research within their field of expertise, in line with their qualifications and experience, and to avoid conflicts of interest.

§ 37.

A researcher overseeing a diploma thesis or doctoral dissertation should set a model of conduct consistent with the principles of ethics and ensure that the student or doctoral candidate under their supervision is familiar with the ethical principles and values of conducting scientific research.

§ 38.

Serving as an academic supervisor for a diploma thesis or doctoral dissertation does not entail co-authorship of any scientific work or publications produced by the student or doctoral candidate under supervision.

SECTION 5

Relations with Society

§ 39.

Public statements made by researchers outside professional forums should be grounded in respect for scientific methods, the exchange of arguments, the analysis of facts, and should demonstrate respect for differing opinions.

§ 40.

It is reprehensible to exaggerate the significance of research results or their practical applications.

§ 41.

As a citizen or member of society, a researcher should publicly speak out on matters concerning the general public, especially those within their scientific expertise.

SECTION 6

Conflicts of Interest

§ 42.

A researcher is in a conflict-of-interest situation when, due to personal dependencies, social roles, financial ties, institutional affiliations, or non-professional obligations, there is a risk that their decisions or actions in data collection, interpretation, inference, publications, or in fulfilling duties associated with their functions or positions will violate the standards of criticism, impartiality, and objectivity in science.

§ 43.

Typical activities in which conflicts of interest may arise include, in particular: evaluating the achievements of students, doctoral candidates, or researchers; reviewing the academic output of researchers in employment or promotion proceedings; reviewing scientific publications; assessing research projects; allocating financial resources for research; purchasing materials or services used in scientific research; and establishing cooperation with external entities relative to one's home institution.

§ 44.

In the event of a conflict of interest, the researcher is obliged to withdraw from the activity in which the conflict has arisen, notifying the entity to which the conflict pertains. If such withdrawal is not possible, the researcher should disclose the conflict of interest to all parties concerned.

§ 45.

Researchers should submit annual conflict-of-interest declarations to their employer and, in cases where a conflict exists, comply with the provided guidelines regarding necessary adjustments.

CHAPTER III

Misconduct in Research

SECTION 1

Gross Violations of the Principles of Research Ethics

§ 46.

Gross violations of research ethics involve actions that undermine the essence of scientific research, i.e., the systematic pursuit of knowledge and understanding through inquiry, reflection, observation, and experimentation. In particular, gross violations of research ethics include:

1) fabrication of research results, i.e., reporting data in research documentation or publications that were not actually obtained in a study;
2) falsification of research results, i.e., modifying or omitting obtained data so as to support specific conclusions of research or to prevent those conclusions from being questioned;
3) plagiarism, i.e., appropriating another person's intellectual achievements at the publication stage by copying, transcribing, or paraphrasing their text (in part or in whole) without citing the source or author, and presenting it as one's own or structuring the text in a way that suggests authorship.

§ 47.

The place or form in which gross violations of research ethics occur (e.g., research funding applications, peer review, conference presentations, expert

opinions, scientific or popular science publications, media statements, teaching activities, etc.) does not alter the nature or severity of these violations.

SECTION 2
Other Violations of Research Ethics

§ 48.

Initiating, carrying out, or tolerating actions that compromise the integrity of the research process or the publication of its results. Such actions include, in particular:

1) succumbing to or facilitating the influence of research sponsors, opinion centers, or political entities on research outcomes;
2) using statistical data in a misleading way;
3) unjustified non-disclosure of research data or results (the withholding of research data or results must be justified);
4) listing as authors or co-authors of publications individuals who do not meet the authorship criteria;
5) citing the works of others in a selective, inaccurate, or misleading way;
6) inflating a publication's bibliography in a way that is not substantively justified;
7) concealment of the use of artificial intelligence or automated tools in the creation or processing of a publication;
8) establishing, supporting, or intentional collaborating with journals or publishers that undermine research quality and publication integrity (known as "predatory journals and publishers");
9) republishing one's previously published work (in whole or in significant part), including translations, without providing information on the original publication and its bibliographic details (known as "self-plagiarism");

10) dividing research findings into smaller segments in order to artificially inflate the number of one's scientific publications;
11) misrepresentation of research achievements, data, or the roles of others (e.g., students, doctoral candidates, or collaborators) in scientific research or preparation of a publication.

§ 49.

Initiating, carrying out, or tolerating actions in order to negatively influence relationships among researchers, as well as their careers or academic advancement. Such actions include, in particular:

1) harassment, humiliation, or discrimination against others or colleagues;
2) exploitation of hierarchical relationships to encourage violations of the principles of research integrity or to advance one's own career;
3) deliberate blocking of the work of other researchers and hindering their development or advancement of their careers;
4) preparation of dishonest reviews of theses, dissertations, or academic achievements in habilitation or professorial proceedings, as well as in recruitment processes at research institutions;
5) malicious or unfounded accusations of misconduct or other violations of methodological standards or research ethics;
6) playing down the role of other researchers, students, doctoral candidates, or collaborators in the authorship or co-authorship of scientific achievements or publications;
7) collusion between reviewers and authors to ensure mutual positive reviews of publications for the purpose of career advancement.

§ 50.

Ignoring or tolerating violations of the principles of research ethics by failing to report detected misconduct or by concealing or covering up inappropriate responses from individuals or institutions to such violations.

SECTION 3

General Principles for Handling Cases of Research Misconduct

§ 51.

Employers (particularly universities, research institutes, and both public and private research centers) bear institutional responsibility for handling cases of research ethics violations that have been revealed. They have the obligation to uphold research integrity and ensure compliance with applicable procedures in investigative and disciplinary proceedings.

§ 52.

Employers have the obligation to provide protection for whistleblowers reporting violations of research ethics, safeguarding them from unwarranted disclosure or retaliation.

§ 53.

All allegations of research misconduct must be thoroughly investigated. If the allegations are substantiated, the facts and circumstances must be carefully examined to determine appropriate corrective and disciplinary actions in accordance with applicable regulations.

§ 54.

The response to violations of research ethics should be proportionate to the severity of the misconduct and take into account whether it was intentional, the extent of its consequences, and any aggravating or mitigating factors.

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