Code of Conduct for Research Integrity and Ethics in Slovakia













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Preamble

The Code of Conduct for Research Integrity and Ethics in Slovakia (hereinafter referred to as the "Code") is a collective expression of ethical commitments and integrity requirements that are binding for all professional scientific and academic workers¹ in the field of science and research, as well as for all state or private organizations (if funded by public resources) and institutions planning, evaluating, conducting, publishing, or funding basic or applied research and development within Slovakia, including their participation in international scientific or technological collaborations.

The mission of the Code is to contribute to the general and integral adherence to stringent ethical requirements, to prevent unethical and dishonest conduct (misconduct) and behavior in science, research, and development, thereby enhancing their quality and trustworthiness both domestically and internationally.

The Code follows Slovak legal regulations², binding legal acts of the European Union, and international treaties and agreements.³ It has been developed in alignment with the European Code of Conduct for Research Integrity.⁴

The principles of academic integrity and ethics are an integral part of the Code, as education and training are inseparable components of the ecosystem of science and research. Resolving violations and allegations of breaches of the rules of research integrity and ethics is based on principles of fairness, harm prevention, confidentiality, balancing rights, and adequate resolution time.⁵

- 1. In the text, the masculine form is used as a generic term. The masculine form in this context refers to all individuals.
- 2. Primarily Act No. 131/2002 Coll. on Higher Education Institutions and on Amendments and Supplements to Certain Acts; Act No. 269/2018 Coll. on Quality Assurance of Higher Education and on Amendments and Supplements to Act No. 343/2015 Coll. on Public Procurement and on Amendments and Supplements to Certain Acts as amended; Act No. 172/2005 Coll. on the Organization of State Support for Research and Development and on Amendments and Supplements to Act No. 575/2001 Coll. on the Organization of Government Activities and the Organization of Central State Administration as amended; Act No. 18/2018 Coll. on Personal Data Protection and on Amendments and Supplements to Certain Acts; Act No. 55/2023 Coll., which amends Act No. 344/2004 Coll. on Patent Agents, amends Act No. 444/2002 Coll. on Designs, and Act No. 55/1997 Coll. on Trademarks as amended by Act No. 577/2001 Coll., Act No. 14/2004 Coll. as amended, and which amends Act No. 517/2007 Coll. on Utility Models and on Amendments and Supplements to Certain Acts as amended; Act No. 242/2017 Coll., which amends and supplements Act No. 435/2001 Coll. on Patents, Supplementary Protection Certificates, and on Amendments and Supplements to Certain Acts (Patent Act) as amended, and which amends and supplements certain other acts; Act No. 517/2007 Coll. on Utility Models and on Amendments and Supplements to Certain Acts; Decree No. 223/2002 Coll. of the Industrial Property Office of the Slovak Republic implementing Act No. 435/2001 Coll. on Patents, Supplementary Protection Certificates, and on Amendments and Supplements to Certain Acts (Patent Act).
- 3. HE Framework Programme Regulation 2021/695: https://eur-lex.europa.eu/eli/reg/2021/695/oj
 HE Specific Programme Decision 2021/764: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021D0764
- 4. The European Code of Conduct for Research Integrity ALLEA
- ENRIO: Recommendations for the Investigation of Research Misconduct by ENRIO (2019): https://www.enrio.eu/resources/?cat=6

Article 1. Basic Terms

Research integrity is a fundamental prerequisite for high-quality scientific work, consisting of the consistent adherence to the highest professional and moral standards. In this document, research integrity is defined as a summary of scientific integrity and academic integrity.

Scientific integrity is a set of principles, ethical values, deontological obligations, and professional standards that form the basis of responsible and proper conduct and behavior by those who perform, fund, or evaluate scientific research, as well as by institutions that support and conduct it. Scientific integrity is a primary prerequisite for quality research work, requiring strict adherence to the highest professional, moral, and ethical principles and standards, transparency, conducting research critically, without bias, and with absolute integrity in practice and administration by individuals or research institutions. The main principles of research integrity include responsibility, honesty, respect, and reliability.

Academic integrity is a set of values and rules concerning study and education, ensuring that study and education are based on the principles of responsibility and honesty. Integrity is related to the morality and deontology of students and educators, as well as educational institutions, deriving from proper study and educational practices. Violations of these principles are investigated by a disciplinary or ethics committee or a similar body established by the institution providing education to students.

Proper scientific and research practice represents an international ethical and scientific standard for the planning, implementation, evaluation, and publication of science, research, and development results, as well as an ethical and scientific standard for the conduct and behavior of all entities (researchers, research organizations, and organizations funding and managing research) operating in these areas. Ethical principles and norms are logically undeniable foundations, rules, and requirements for the moral conduct and behavior of individuals and legal entities.

A violation of the provisions of the Code constitutes actions or behaviors by individuals or legal entities that are contrary to the provisions of the code.

Article 2. Scope of Application

The Code applies to professional activities, as well as the conduct and behavior of individuals and legal entities operating in science, research, development, or engaged in academic activities.

2.1. Professional Activities in the Fields of Science, Research, Development, and Academic Work Professional activities in the fields of science, research, development, and academic work include:

- a) Professional activities and processes conducted throughout the entire lifecycle of scientific research and development, starting with the planning and performing a research or development project, its professional evaluation and approval, the implementation of the research or development itself, the procedures and methods for solving the project, the evaluation, publication of the results and outcomes obtained, and their application in practice.
- b) Professional activities and processes related to studying, educating, and training professionals, scientists, researchers, and developers, the creation, collection, critical evaluation, and publication of scientific and professional knowledge and experiences, as well as the conduct and behavior of all individuals or legal entities operating in these fields.
- c) Professional activities and processes associated with obtaining and awarding scientific or academic qualifications and titles.

2.2. Institutions and Organizations (Legal Entities) Operating in the Fields of Science, Research, Development, and Academic Work

Institutions and organizations (legal entities) operating in the fields of science, research, development, and academic work include:

- a) Institutions and organizations that plan, conduct, evaluate, authorize, supervise, or fund science (scientific research), research, and development (including private research), funded from public sources, whether basic, applied, or practice-oriented research.⁶
- b) Institutions and organizations active in studying, educating, and training professionals, scientists, researchers, and developers, in creating, collecting, critically evaluating, and publishing scientific and professional knowledge and experiences, funded from public sources.
- c) Public and private institutions (including those not funded from public sources) if they conduct research in collaboration.
- d) Public and private institutions if they conduct research partially funded from public or private sources.

2.3. Individuals (Natural Persons) Working in Institutions and Organizations in Science, Research, Development, and Academic Work, as well as Independent Workers

Individuals (natural persons) working in institutions and organizations in science, research, development, and academic work, as well as independent workers, include:

a) Professional and research workers in the fields of scientific, research, or development work (including project team leaders, responsible/main investigators, co-investigators, professional workers, and staff providing technical, material, computational, or informational support, directors, and management personnel) (hereinafter referred to as "research workers").

^{6.} Legal Entities and Entrepreneurs Conducting Research and Development Are Classified for Statistical Purposes into the Following Research and Development Sectors:

a) State Sector, which consists of the Slovak Academy of Sciences and legal entities conducting research and development established by central government authorities (hereinafter referred to as "central authority").

b) Public Research Institutions Sector, which includes public research institutions.

c) Higher Education Sector, which consists of public universities, state universities, private universities, and legal entities established by them that conduct research and development.

d) Nonprofit Sector, which includes civic associations, nonprofit organizations, and associations of legal entities conducting research and development.

e) Business Sector, which consists of entrepreneurs who conduct research and development as part of their business activities.

- b) Higher education teachers, regardless of their workload (including senior teaching staff, senior leaders, management personnel, and advisory bodies of faculty and university administrations, as well as other university employees) (hereinafter referred to as "higher education teachers").
- c) Students of all levels of higher education (including students in specialized or certification studies under the jurisdiction of specific sectors).
- d) Employees of institutions and organizations financially supporting science, research, and development from public sources (including their leadership and management personnel).
- e) Scientists, professionals, and higher education teachers involved in processes of evaluation and peer review, approval/authorization, and supervision of activities in science, research, and development.

2.4. Compliance of the Code with Legislation and Relation to Other Regulations

- a) The norms of the Code are understood as minimum standards, which can be supplemented and expanded for each discipline, field, sector, or institution.
- b) If existing ethical codes do not meet the standards outlined in this Code, relevant entities are required to align them with this Code.

HONESTY INTEGRITY

Article 3. Ethical Values, Principles, and Norms of Research Integrity

Work in the fields of science, research, development, and various academic activities includes, in addition to the inseparable technical, technological, didactic, and other methodological characteristics and requirements, a moral requirement. This moral dimension arises from the significance and contribution of professional and expert activities to society as a whole and encompasses ethical discernment and guidance based on values, principles, and norms that are generally respected in democratic society.

3.1. General Ethical Values, Principles, and Norms

- a) Freedom of scientific inquiry, research, development, and academic activities (along with the responsibility to the institution conducting the research and society as a whole). Equally, their independence from political, ideological, or religious influences should be a fundamental value and essential prerequisite.⁷
- b) Human dignity as the foundation of human rights, civil liberties, and the basis for the existence, functioning, and development of a democratic society.
- c) Human rights, civil liberties, and the legitimate interests of individuals and groups within society in achieving individual and collective well-being.
- d) Promoting gender equality and equal opportunities for men and women.
- e) Ethical values, principles, and norms generally recognized and applied in democratic society.

3.2. Ethical Values, Principles, and Norms in Scientific and Research Practice

3.2.1. Implementation of Proper Scientific and Research Practices

The implementation of proper scientific and research practices, aimed at achieving integrity in research work and academic activities, requires strict application of relevant ethical values, principles, and norms. This is realized in the following areas:

- a) Research environment,
- b) Education, supervision, and professional mentoring,
- c) Research procedures,
- d) Ethical measures to ensure protection and safety,
- e) Data processing and management,
- f) Cooperation and coordination,
- g) Increased attention to non-discrimination against women and their support in scientific careers,
- h) Publishing and dissemination of scientific information and research results,
- i) Authorship of scientific discoveries and professional publications,
- Evaluation of the scientific and ethical quality of research results and outcomes, final and qualification works, professional peer reviews of scientific and professional publications, and editorial activities.

3.2.2. Ethical Requirements for Ensuring Research Integrity in the Research Environment

Research institutions, organizations, and universities ensure the integrity of the research environment primarily by:

- a) Promoting (scientific, professional, and ethical) awareness and ensuring that a culture of research integrity prevails in research.
- b) They formulate clear rules and procedures for proper research practices and address violations of these practices transparently.⁸

^{7.} The Bonn Declaration on Freedom of Scientific Research, available online: https://www.bmbf.de/files/10 2 2 Bonn Declaration en final.pdf

^{8.} ENRIO: Recommendations for the Investigation of Research Misconduct by ENRIO (2019) http://www.enrio.eu/resources/?cat=6.

- c) They create an environment that allows professional and scientific workers to work according to the principles of proper scientific and research practices, freely and openly discuss ethical dilemmas and unintentional errors in the implementation of scientific research activities without fear of possible consequences or penalties (so-called *blame-free reporting*).
- d) They support appropriate infrastructure for the management and protection of research data and research material in all its forms⁹ (see also Article 3.2, paragraph 7).
- e) They apply transparent procedures in the recruitment and career advancement of research and academic workers.
- f) They create an inclusive environment and strictly adhere to the principles of equal opportunities and non-discrimination. 10
- g) They do not tolerate any form of discrimination, bullying, humiliation, defamation, slander, or other displays of hostility toward individuals or groups.
- h) They exclude any verbal or non-verbal behavior that may exhibit characteristics of physical or psychological violence, coercion, or similar forms of behavior, including gender-based violence and harassment.
- i) They exclude any actions intended to or resulting in the abuse of one's position, authority, or power.

3.2.3. Ethical Requirements to Ensure Research Integrity in Education, Supervision, and Leadership

- a) Research institutions, organizations, and universities prepare suitable and appropriate education in the field of research ethics and integrity, ensuring awareness of relevant codes, norms, and regulations, discussing potential ethical issues and model cases.
- b) Researchers and university teachers undergo training in research ethics and research integrity throughout their careers.
- c) Researchers, university teachers, research leaders, principal investigators, and mentors guide students and team members, advise them, and provide professional training that directs the development of their research activities, its concept and structure, and strengthen the culture of research integrity through their personal example.

3.2.4. Ethical Requirements to Ensure the Integrity of Research Procedures Fulfilled by Individuals According to Article 2.3.

- a) In their research, they take into account the best/most appropriate verified knowledge and practices achieved in the respective field.
- b) They propose, conduct, analyze, and document research thoroughly and thoughtfully.
- c) They use funds allocated for research properly, efficiently, economically, and responsibly.
- d) They publish results and interpret research honestly, transparently, and accurately.
- e) In justified cases, they maintain the confidentiality of data or findings.
- f) They describe the obtained results and the methodology used (including the use of external services, artificial intelligence, or automated tools) in a way that allows for the verification or replication of the research, and in accordance with EC policies.¹¹
- g) They contribute to strengthening the culture of research integrity, report cases of its violation (see Article 4), and appropriately contribute to resolving them.
- h) Where possible, they publish in open access mode.

^{9.} Such data and materials include, for example, qualitative and quantitative data, research protocols, research processes and procedures, other research artifacts, and related metadata necessary to ensure the verification and reproducibility of research.

10. It requires that no employee shall be unjustly discriminated against on the basis of gender, sexual orientation, race, skin color, language, belief and religion, political or other opinion, disability, national or social origin, affiliation to a nationality or ethnic group, property, gender, or other status.

^{11.} For example: Living Guidelines on the RESPONSIBLE USE OF GENERATIVE AI IN RESEARCH

- i) They are aware of their responsibility for the quality of research and the reliability of the results obtained and act in accordance with proper scientific and research practices and the principles of research integrity.¹²
- j) Through public appearances, social networks, and internet portals, they disseminate only verified, confirmed, and up-to-date scientific information presented in the correct context.
- k) They apply the principles of research integrity even in public appearances that are not primarily aimed at disseminating scientific knowledge, keeping in mind that, as scientific authorities, their positions and missions influence the general public.

3.2.5. Ethical Requirements for Ensuring the Integrity of Scientific Research and Development Are Fulfilled by Ensuring That This Research:

- a) Is conducted exclusively using scientific methodology while adhering to rules specific to the given discipline.
- b) Is open to skepticism, verification, rational, and reasoned criticism.

3.2.6. Ethical Requirements for Ensuring the Protection and Safety of Research Are Fulfilled by Researchers and University Teachers by:

- a) Adhering to safety standards and regulations related to their field of study and the methods, instruments, materials, and technologies used.
- b) Treating research subjects, whether human, animal, or objects of cultural, biological, environmental, or physical nature, with appropriate respect, care, and in compliance with applicable laws and relevant ethical principles and norms.
- c) Taking due account of the health, safety, personal dignity, and autonomy of collaborators and other persons affected by the research, while also adequately considering potential risks and societal impacts of the research (including particular attention to marginalized, vulnerable, disadvantaged, or excluded groups).
- d) Being aware of and proactively identifying foreseeable risks that may arise from their research, and, at the planning stage, developing procedures to minimize these risks.
 e) Ensuring that research protocols adequately consider the importance of differences based on age, gender, social class, culture, religion, and ethnic origin.
- e) They are responsible for informing and monitoring compliance with the principles of research integrity, safety standards, and regulations related to procedures, instruments, materials, and technologies used in research involving laypersons/non-professionals (e.g., citizen science, participatory research).

3.2.7. Ethical Requirements for Ensuring Integrity in the Collection, Processing, Storage, and Management of Research Data (and Databases) Are Fulfilled by Researchers, University Teachers, Research Institutions and Organizations, and Universities by:

- a) Ensuring appropriate management, methods of acquisition, processing, and organization of all data, metadata, protocols, software, and other research material, including unpublished materials, as well as their secure storage for an adequate period.¹³
- b) Ensuring that access to data is as open as possible within necessary limitations and, when appropriate and in accordance with the FAIR data management principles.¹⁴

^{12.} The European Code of Conduct for Research Integrity – ALLEA

^{13.} Act No. 18/2018 Coll.; <u>REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL</u> of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, repealing Directive 95/46/EC (General Data Protection Regulation - GDPR).

^{14.} Findable, Accessible, Interoperable, and Reusable (FAIR principles).

- c) Providing transparent access to and use of their data and research materials by others (where feasible or permitted by informed consent).
- d) Informing research participants about how their personal data will be protected, who will have access to it, for what purposes it will be used, and how, when, and under what conditions it will be deleted; they prepare consent for the processing of personal data in compliance with applicable legal regulations.
- e) Treating data as legitimate research outputs that can be cited.
- f) Ensuring that all contracts or agreements related to research results contain fair terms for the use, ownership, and protection of research results in accordance with intellectual property law.
- g) Complying with legal provisions and regulations related to data protection.

3.2.8. Ethical Requirements for Ensuring Integrity and Ethics in the Cooperation and Coordination of Research, Development, and Academic Activities Are Fulfilled by All Partners in Research Collaboration and Coordination by:

- a) Being jointly responsible for the research integrity of their collaborative research.
- b) Agreeing, before the start of the research, on the objectives, methods, and conditions for conducting the research (including a precise determination of the responsibilities of individual partners), as well as on how the results will be published and how intellectual property issues related to the joint research will be addressed.
- c) Agreeing, before the start of the research, to respect the principles and norms of research integrity, and, especially in the case of international cooperation, mutually informing one another about the relevant laws and other legal regulations for the protection of intellectual property. They also agree on how to address potential problems or conflicts, including how to handle cases of breaches of research integrity principles, as well as agreed-upon details/procedures.
- d) Jointly evaluating, before the start of the research, the feasibility, potential impact, and ethical implications of the given research.

3.2.9. Ethical Requirements for Ensuring Research Integrity in Publication Activities and Dissemination of Information and Data Are Fulfilled by Researchers, University Teachers, Research Institutions and Organizations, and Universities by:

- a) Recognizing that authorship of a scientific or professional publication is based on:
 - Significant contributions to the design of the research, collection of relevant data, analysis, or interpretation of research results,
 - 2) Drafting and/or critically reviewing the manuscript,
 - 3) Approval of the final version of the manuscript,
 - 4) Acceptance of responsibility for the entire content of the publication, including adherence to relevant ethical principles and standards, with all these authorship attributes needing to be met simultaneously.
- b) Agreeing on the order in which authors will be listed in the publication.
- c) Agreeing on the definition of responsibilities and the level of contribution of individual authors to the publication.
- d) Ensuring that their work is made available to co-authors in a timely, complete, and transparent manner before publication.
- e) Acting in accordance with the relevant ethical requirements in communication with the public, as well as in print and social media.

- f) Acknowledging the significance and contributions of other researchers and correctly citing related works.
- g) Disclosing the use of artificial intelligence (AI) in project design, data processing, or the formulation of scientific results, indicating that AI was used in accordance with research integrity rules and EC policies.¹⁵
- h) Declaring any potential or actual conflicts of interest, as well as financial or other support received for research or the publication of its results, in a prescribed manner.
- i) Properly crediting the institutions where the research was conducted, as well as all sources of any external financial support for the research described in the publication, in accordance with the funding provider's requirements.
- j) Requesting the publication of corrections to a published work, where necessary, in a prescribed manner.
- k) Promptly requesting the withdrawal of published work in the event of significant errors or misconduct, following the procedure established by the publisher.
- l) Avoiding questionable publishing practices and refraining from using unreliable publication platforms (e.g., predatory journals and conferences).¹⁶
- m) Recognizing that so-called negative research results can have equal importance and value for the development of scientific knowledge as so-called positive results.

3.2.10. Ethical Requirements for Ensuring Integrity in the Evaluation of Research and Development Projects, the Assessment of Research and Development Results, and Related Decision-Making Processes (e.g., Grant Allocation) Are Fulfilled Particularly By:

- a) Researchers, university teachers, research institutions and organizations, as well as institutions and organizations funding research and development, evaluating and assessing submitted research protocol proposals, applications for research and development grants, proposals for the publication of scientific and professional works, applications for employment, nominations for leadership positions, and proposals for special recognition of outstanding research and academic workers based on predefined, clearly defined criteria and transparent, predetermined procedures. They must also declare and specify in advance the method, scope, and limitations of using artificial intelligence (AI) applications or properly validated automated tools in compliance with EC policies.¹⁵
- b) Researchers and university teachers consider their participation in the evaluation and assessment of submitted research protocol proposals, as well as the evaluation of research results and peer review of scientific and professional publications, to be a serious professional obligation to the research community and the entire field of research and development. They engage in these activities with full responsibility and in accordance with relevant ethical principles and standards, including maintaining professional confidentiality.

^{15.} For example: Living Guidelines on the RESPONSIBLE USE OF GENERATIVE AI IN RESEARCH.

^{16.} Predatory publishers/journals exploit the open access system, focusing solely on financial profit from article processing and publishing fees, without regard for the quality of the published article. They are characterized by false or misleading information, deviations from best editorial and publishing practices (fictitious or no peer review), lack of transparency, and/or the use of aggressive and inappropriate harassing practices.

- c) Reviewers, assessors of research projects and results, reviewers of scientific and professional publications, editors of scientific and professional (periodical and non-periodical) publications, and members of decision-making and advisory bodies (boards and committees) declare any potential or actual conflict of interest in a predetermined manner and, in such cases, do not participate in the respective evaluation, advisory, or decision-making processes.
- d) Authors, research and funding institutions, publishers, researchers, and university teachers recognize that so-called negative research results can have equally significant importance and value for the advancement of scientific knowledge as so-called positive results.

Article 4. Violations of Research Integrity and Ethics

Violations of the provisions of this Code due to unethical actions or behavior by individuals or legal entities result in breaches of research or academic integrity. Such violations can vary in scope and severity but always harm the credibility of science, research, development, and academic activities, their proper quality, and reputation, not only within the scientific community but also among the general public. The following list of violations of proper research practices includes definitions and examples but is not exhaustive.

4.1. Serious Violations of Research Integrity and Ethics

Serious violations intentionally distort the process, results, or outputs of research and development or their interpretation or disrupt and improperly manipulate various research activities (during the design, implementation, evaluation, or reporting of research results). This includes proper education, training, and development of scientific, research, and other professional staff. Serious violations of research integrity and ethics include:

- a) **Fabrication**: The deceptive creation of invented results and their recording, processing, and presentation as if they were real (obtained through the stated research).
- b) **Falsification**: Intentional deceptive manipulation of research materials, equipment, or processes, or the deceptive alteration, replacement, omission, or disregard of data or research results, using falsifications instead of actual data.
- c) Plagiarism: The deceptive appropriation and use of others' work or ideas (usually without proper reference to the original source), thereby violating the intellectual property rights of the original author(s).

4.2. Questionable Research Practices (QRP)

QRP refers to actions or behaviors that contradict generally accepted research ethics and integrity requirements as formulated in this Code. These include:

4.2.1. QRP Related to Research Data

- a) Inadequate or intentionally incorrect (manipulative) management of research data, from acquisition to processing, storage, and provision, which violates legal regulations, relevant professional recommendations, and generally respected procedures and standards.
- b) Inadequate protection or improper storage of primary data.
- c) Unjustified refusal to provide access to primary data, including information on how the data was obtained, or destruction of such data before the mandatory retention period.

4.2.2. QRP Related to Publications, Conferences, or Proposals for Research or Educational (Grant) Projects

- a) Manipulation of Authorship: Examples include fictitious authorship, unfair acquisition of coauthorship for a published work or project proposal (contract cheating), failure to recognize contributions of other researchers or team members by omitting their co-authorship, or arbitrarily assigning unjustified levels of co-authorship in publications or project proposals.
- b) Using Al applications or other automated tools without proper disclosure.
- c) **Self-Plagiarism**: Republishing significant parts of one's own publications, including translations, without proper citation of the original work, as well as self-plagiarism in project proposals.
- d) Inflating the number of one's publications by unjustifiably dividing them into smaller parts for separate publication (*salami slicing*).
- e) Deliberately providing false or inaccurate information in project proposals, especially information that could disadvantage competing project proposals.
- f) Unfair attempts to influence the activities and decisions of evaluators, assessors, or decision-makers, including funding agencies and their expert or scientific committees (e.g., misuse of insider knowledge about internal processes, criteria, individuals involved in evaluations, or competing projects).
- g) Unauthorized or deceptive inflation of a project's budget.
- h) Selective or purposefully excessive citation of certain works to unduly support one's research findings or to satisfy editors, reviewers, or colleagues.
- i) Negligence by editors in respecting the rights of co-authors in joint publications (e.g., altering their text without consent, failing to inform them of rejection, etc.).
- j) Publishing research or development results in questionable, pseudo-academic events or in periodic/non-periodic publications or other media that do not adhere to generally accepted publication ethics and integrity standards (predatory conferences, journals, paper mills, etc.).Organizing, supporting, or participating in questionable, pseudo-academic, or pseudoscientific events that fail to adhere to generally accepted principles and norms of publication ethics and integrity.

4.2.3. QRP Related to Research Methods/Practices

- a) Using inappropriate, harmful, unjustifiably risky, or dangerous research methods and procedures, including intentionally unsuitable statistical methods and their misuse.
- b) Logically flawed, poorly developed, or unclear methodology in the design of a submitted research or development project.
- c) Purposeful selection of research methods and procedures aimed at achieving results that do not reflect reality but rather the researcher's expectations (bias design).
- d) Violating, failing to adhere to, or making unjustified and unauthorized changes to the originally approved research or development protocol.
- e) Failing to obtain approval from relevant ethics committees for research or development projects involving ethically sensitive areas (where applicable).

4.2.4. QRP Related to Reviewer Conduct

- a) Any breach of required confidentiality.
- Superficial, poor-quality, uncritical, or biased evaluation of a publication or research/ development project proposal.
- c) Failure to disclose a conflict of interest or potential conflict of interest.

- d) Misuse of information obtained during evaluation, review, or peer-review activities for personal gain or for the benefit of a third party.
- e) Recommending authors to purposefully expand their reference list to boost citations of their own or connected publications.
- f) Bias in the evaluation, review, or peer-review process (e.g., bias against authors, institutions, topics, or other aspects of the work, publication, or project being evaluated).

4.2.5. QRP Related to Personal Behavior of Research and Academic Staff, Particularly Those in Leadership or Decision-Making Positions

- a) Undermining the independence of the research process or the publication of its results (intentional bias, e.g., to unjustly benefit research funders or supporters).
- b) Neglecting management and leadership responsibilities in research.
- c) Unjustified inflation of one's own bibliography.
- d) Non-transparent use of financial resources allocated for research.
- e) False accusations or slander against a researcher for methodological or ethical violations.
- f) Purposefully withholding or distorting his/her research results or outputs concerning their application in practice or further research and development.
- g) Intentionally delaying or obstructing the work of other researchers.
- h) Abuse of professional position to intentionally violate research, development, or academic ethics and integrity.
- i) Ignoring or concealing cases of violations of research integrity and ethics in research, development, or academic activities.
- Neglecting professional mentoring, education, training, and supervision of students, subordinate researchers, or academic staff, particularly those in doctoral or specialized studies.
- k) Damaging or sabotaging the preparation, implementation, evaluation, or publication of research and development activities (e.g., intentionally failing to provide timely maintenance, certification, or accreditation of necessary instruments and methods; failing to provide essential resources such as documentation, equipment, software, chemicals, or materials needed for another researcher's work).
- I) Creating obstacles to the career progression of researchers and academic staff.
- m) Direct or indirect retaliation against professional, scientific, research, or academic staff who report cases of potential or actual violations of research integrity and ethics or questionable scientific practices.
- Purposefully writing unjustifiably positive or negative reference letters to influence career opportunities or selection processes for specific professionals, researchers, developers, or academics.
- o) Discriminatory, derogatory, or other inappropriate behavior (see Article 3).

Article 5. Ethics Committee and Addressing Violations and Allegations of Violations of the Principles and Standards of Research Integrity and Ethics

5.1. Ethics Committee

The Ethics Committee reviews cases of violations of this Code, breaches of research integrity and ethics, serious violations of research integrity and ethics, as well as cases of questionable research practices.

- **5.1.1.** Institutions and organizations (legal entities) operating in the fields of science, research, development, and academic work under Article 2.2 of this Code (hereinafter referred to as "research institution") establish an institutional ethics committee.
- **5.1.2.** The scope and authority of the institutional ethics committee are regulated by the internal regulations of the research institution (statute).
- **5.1.3.** Membership in the ethics committee is governed by the internal regulations of the research institution (statute).
- **5.1.4.** The activities of the ethics committee are regulated by the internal regulations of the research institution (rules of procedure).
- **5.1.5.** In accordance with applicable legislation¹⁷ the Office of the Deputy Prime Minister, strategically and methodologically coordinates the fulfillment of tasks arising from the Code, including the establishment of a relevant body to oversee compliance with the Code. This body will address issues of scientific integrity at the national level, with its competencies defined more specifically in its statute.
- **5.2.** General Principles for Addressing Potential Violations of Research Integrity and Ethics
 The review of violations by the ethics committee must respect and strictly apply the following principles:
- 5.2.1. Principle of Respect for and Protection of Integrity, Confidentiality, Dignity, and Rights of Persons and Ensuring the Investigation Occurs Within an Adequate Timeframe
 - a) The investigation of a violation must be conducted fairly, comprehensively, and purposefully with the highest possible level of accuracy, objectivity, and thoroughness, and in compliance with the relevant provisions of this Code (principle of integrity).
 - b) The investigation of a violation must be carried out in a manner that respects human dignity, the rights, and the legitimate interests of all involved persons (*principle of respect for human dignity, rights, and legitimate interests of persons*).
 - c) Individuals involved in the investigation of violations¹⁸ must promptly report to the relevant body of the institution or organization initiating the investigation any potential or existing conflict of interest they may have (*principle of exclusion of conflicts of interest*).
 - d) The investigation of violations must be conducted with the utmost confidentiality, in a manner that adequately respects and protects the privacy, honor, reputation, and legitimate interests of all involved persons (principle of confidentiality).
 - e) The process of investigating violations must include a fair resolution of the degree of responsibility of the individuals involved (*principle of determining the degree of culpability*).
 - f) The institution or organization initiating the investigation process must take necessary measures to protect the dignity, rights, and legitimate interests of whistleblowers reporting violations of the provisions of the Code, as well as witnesses participating in the investigation

^{17. § 9}a, Paragraph 1, Letter f), and Paragraph 2 of Act No. 172/2005 Coll. on the Organization of State Support for Research and Development and on the Amendment of Act No. 575/2001 Coll. on the Organization of Government Activities and the Organization of Central State Administration, as amended.

^{18.} The suspect or accused person, members of the ethics committee, the whistleblower, witnesses, or other relevant ad hoc entities.

- g) process (principle of respect and protection of the dignity, rights, and legitimate interests of whistleblowers and witnesses).¹⁹
- h) The institution or organization initiating (or receiving a report for) an investigation of a violation must take measures to ensure that the investigation concludes with findings within an acceptable timeframe (principle of adequate time for resolution).

 b) The internal regulations of the institution or organization governing the resolution of
 - h) The internal regulations of the institution or organization governing the resolution of research integrity and ethics violations must be publicly available (*principle of transparency*).

5.2.2. Principles of Fairness, Presumption of Innocence, Non-Harm, and Proportionality

- a) The investigation of a violation is conducted properly and fairly towards all participants, without prejudice or favoritism (*principle of fairness*).
- b) Any person suspected of or accused of violating the principles and standards of research integrity and ethics is presumed innocent until the opposite is reliably and unequivocally proven (*principle of presumption of innocence*).
- c) The committee tasked with investigating the violation (hereinafter referred to as "the committee") is responsible for gathering and evaluating the necessary information and evidence and reaching an appropriate conclusion, proceeding independently of the institution or organization and the individuals involved in the investigation (principle of committee independence).
- d) The committee must operate in accordance with its statutes, rules of procedure, other relevant internal regulations of the institution or organization, and generally binding legal regulations (*principle of good practice*).
- e) The committee must protect and secure the information and evidence obtained during the investigation process from unauthorized disclosure, misuse, or destruction throughout the entire investigation (*principle of confidentiality*).
- f) If the committee reaches a definitive and properly justified conclusion that confirms a violation of research integrity and ethics rules by the person suspected or accused, the committee must also propose remedial or sanctioning measures to the appropriate statutory body, proportional to the severity of the violation (principle of proportionality).
- g) A person found to have violated the principles and standards of research integrity and ethics has the right to appeal the committee's findings and request a reassessment in a repeated proceeding before the committee (right to a fair trial).
- h) If the violation is not proven and there is a reasonable presumption that the committee's proceedings may harm the person in question, the committee must propose appropriate measures to restore their reputation and good standing in the academic, scientific, or professional community of the organization or institution, as well as, if necessary, publish appropriate information to this effect (principle of fairness, principle of non-harm, principle of remedying injustice).
- i) A person who, in good faith and in a reasonably discreet manner, reports a reasonable suspicion of a violation of research integrity and ethics principles to the appropriate structures of the institution or organization will not face any negative consequences within that organization or institution as a result of this action, and, if necessary, they will be provided with adequate protection and assistance.²⁰

http://www.enrio.eu/news-activities/enrio-publishes-the-handbook-on-whistleblower-protection-in-research

20. Act No. 54/2019 Coll. on the Protection of Whistleblowers of Anti-Social Activities and on the Amendment and Supplementation of Certain Acts, as amended;

The Directive (EU) 2019/1937 of the European Parliament and of the Council of 23 October 2019 on the Protection of Persons Who Report Breaches of Union Law:

https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32019L1937;

ENRIO Handbook on Whistleblower Protection in Research, available online:

 $\underline{\text{http://www.enrio.eu/news-activities/enrio-publishes-the-handbook-on-whistleblower-protection-in-research/}$

^{19.} ENRIO Handbook on Whistleblower Protection in Research, available online:

5.3. Recommendations: Procedure for Reviewing Violations of the Principles and Standards of Research Integrity and Ethics

- a) Violations of the principles and standards of research integrity and ethics must be promptly clarified and fairly resolved. The institution must ensure that premature publicity is avoided (before the investigation process is concluded).
- b) The rules for investigating violations respect the shared interest of the parties involved in protecting their reputations, while maintaining the principle of transparency.
- c) The procedure for reviewing violations is divided into two main phases: preliminary inquiry and main proceedings.

5.3.1. Preliminary Inquiry (First Phase)

- a) The purpose of the preliminary inquiry is to determine the factual basis and assess whether the allegation is sufficiently substantiated, balancing the rights of the accused and the person who raised the allegation, while respecting confidentiality and the need to take a clear stance on the facts within a reasonably short time.
- b) During the preliminary phase, the presumption of innocence of the accused is respected.
- c) The preliminary inquiry concludes with a decision on whether the allegation is justified and requires further investigation or whether the allegation is unfounded.
- d) If the allegation is justified and requires further investigation, the form and degree of culpability must be taken into account.

5.3.2. Main Proceedings (Second Phase)

- a) The purpose of the main proceedings is to ascertain additional facts necessary for a final statement regarding the investigated violation, particularly through witness hearings and the collection and examination of evidence.
- b) The main proceedings are not public and are generally conducted in the form of oral hearings.
- c) The conclusion of the main proceedings is a formal statement determining whether a violation of the provisions of the Code (violations of the norms and principles of research integrity and ethics) has been proven, along with a proposed sanction.
- d) The main proceedings conclude with the preparation of a written recommendation for the statutory body. The written recommendation includes the decision and appropriate justification.²¹

Article 6. Final and Transitional Provisions

- (1) The Code of Conduct for Research Integrity and Ethics in Slovakia comes into effect on the date of its approval by the Government of the Slovak Republic.
- (2) Institutions and organizations (legal entities) operating in the fields of science, research, development, and academic work under Article 2.2 must align existing ethical codes with this Code within 12 months of its entry into force as per paragraph 1 of this article.

^{21.} Správna vedecká prax, Recommendation by APVT, November 2004

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