ESTONIAN CODE OF CONDUCT FOR RESEARCH INTEGRITY

2017

Estonian Code of Conduct for Research Integrity

Tartu 2017

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The activity of the work group of the Centre for Ethics, University of Tartu, meetings related to drafting the document were financed by the development fund of the University of Tartu.

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For cover design Chico Lopez's photo from pixabay.com is used, CC0

Publisher
Centre for Ethics, University of Tartu
2017

ISBN 978-9985-4-1082-0
ISBN 978-9985-4-1083-7 (pdf)

ESTONIAN CODE OF CONDUCT FOR RESEARCH INTEGRITY AGREEMENT

By joining the Estonian Code of Conduct for Research Integrity Agreement, the research institutions confirm that they respect the main values of research and the principles of action described in the text of the Estonian Code of Conduct for Research Integrity finalised in 2017 in cooperation between Estonian research institutions, the Estonian Academy of Sciences, the Estonian Research Council, and the Ministry of Education and Research.

Every research institution retains the right to decide how to raise its members' awareness of the main values and principles of action agreed upon, how to ensure their observance within the institution and what procedural rules to establish in order to deal with cases of misconduct.

The text of the Estonian Code of Conduct for Research Integrity Agreement

By signing the Estonian Code of Conduct for Research Integrity Agreement, we confirm that we respect and observe the following main values of research:

- freedom;
- responsibility;
- honesty and objectivity;
- respect and caring;
- justice;
- openness and cooperation.

By joining the Estonian Code of Conduct for Research Integrity Agreement, we acknowledge the responsibility of individual researchers and research institutions as well as research organisations and financers of research concerning:

- planning of research;
- conduct of research;
- publishing and application of research results;
- identification and resolution of conflicts of interest;
- ensuring of collegiality in the workplace;
- dissemination and promotion of the principles of research integrity.

By joining the Estonian Code of Conduct for Research Integrity Agreement, we promise to observe, disseminate, promote and apply the Estonian Code of Conduct for Research Integrity in our institution and to do everything in our power to prevent misconduct, to uncover cases of misconduct and to deal with cases of misconduct appropriately. We cooperate to apply the Estonian Code of Conduct for Research Integrity and to draw up the rules of procedure for dealing with cases of misconduct to ensure the credibility of research and as equal treatment of members of different research institutions as possible.

Signatories:

BioCC LLC
Center of Food and Fermentation Technologies
Competence Centre on Health Technologies
Cybernetica AS
Estonian Academy of Arts
Estonian Academy of Music and Theatre
Estonian Biocentre
Estonian Business School
Estonian Crop Research Institute
Estonian Literary Museum
Estonian National Museum
Estonian Research Council
Estonian University of Life Sciences
Institute of the Estonian Language
Ministry of Education and Research
National Institute of Chemical Physics and Biophysics
National Institute for Health Development
Software Technology and Applications Competence Center
Tallinn University
Tallinn University of Technology
Tartu Observatory
Under and Tuglas Literature Centre of the Estonian Academy of Sciences
University of Tartu

Signed on the 1st of November 2017 in Tallinn

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PREFACE

The aim of the Estonian Code of Conduct for Research Integrity is to support knowledge about, acceptance and entrenchment of research integrity in the Estonian research community. The Code of Conduct for Research Integrity describes the conduct expected from researchers and the responsibility of research institutions in ensuring research integrity, thus contributing to the increase of credibility of research in the eyes of the individual and the public.

The Code of Conduct for Research Integrity is meant to complement the Code of Ethics of Estonian Scientists[1] adopted in 2002. The new document is needed because the development of research has brought forth new themes and perspectives not reflected in the code of ethics, and added new points for consideration. The current document also places greater emphasis on the activities of research institutions, separately pointing out the responsibility of researchers and research institutions,[2] which helps to emphasise that responsibility for ethical research lies with everyone who is active in research. Researchers alone cannot ensure research integrity. So that researchers could behave ethically, the necessary conditions have to be created at the level of the organisation and the system.[3]

The Code of Conduct for Research Integrity has been created as a framework document which provides guidelines to all Estonian research institutions and the researchers working there. The task of the research institution is to elaborate detailed procedural rules which help to increase awareness in the organisation about the principles of research integrity, to monitor the research environment and, if necessary, to interfere and to deal with the cases of misconduct. To ensure as equal treatment of members of different research institutions as possible, research institutions cooperate closely in drafting procedural rules and regulations.

The creation of the document of research integrity was initiated by the Estonian Research Council early in 2016 by forming a work group that included representatives from the Estonian Academy, the Ministry of Education and Research and the Estonian Research Council. The Estonian Research Council entrusted the drafting of the text to the Centre for Ethics at University of Tartu, which had earlier already started writing the research integrity document for the University of Tartu; therefore, the two initiatives were united.[4]

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1 *Code of Ethics of Estonian Scientists* (2002). http://www.akadeemia.ee/_repository/File/ALUSDOKUD/Code-ethics.pdf (accessed 24 October 2017).

2 The responsibility of researchers and research institutions is differentiated in many codes of ethics regulating research and documents of research integrity. The models for the current document in dividing responsibility were the documents of Denmark and ALLEA, the European Federation of Academies of Sciences and Humanities.

The Danish Code of Conduct for Research Integrity (2014). København: Ministry of Higher Education and Science. http://ufm.dk/en/publications/2014/the-danish-code-of-conduct-for-research-integrity (accessed 24 October 2017).

The European Code of Conduct for Research Integrity. Revised edition (2017). Berlin: ALLEA. https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf (accessed 24 October 2017).

3 In addition to researchers and research institutions, responsibility lies with research journals, financers and assessors of research, researchers' associations and other organisations. As the current document of research integrity has been worked out as an agreement between research institutions, the description of activities is limited to researchers and research institutions.

4 The document was prepared by:

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We are grateful for the comments to Riho Altnurme, Talis Bachmann, Jaana Eigi, Natalja Eigo, Ülle Jaakma, Sirje Jalakas, Ulla Kattai, Aleksei Kelli, Marco Kirm, Leene Korp, Linda Lainvoo, Margot Laneman, Tõnu Lehtla, Erika Löfström, Peep Nemvalts, Kalle Olli, Indrek Ots, Aive Pevkur, Mati Rahu, Argo Rosin, Siret Rutiku, Kristi Rüütel, Andres Soosaar, Urmas Sutrop, Kuldar Taveter, Vello Tõugu, Helen Uibopuu, Kristjan Vassil, Renno Veinthal and all the participants in discussion groups.

We also thank all the others who responded to the call to send corrections to the text during the public commenting period.

The document of research integrity consists of the list of main values of research integrity and principles of action. The chapter on principles of action is divided according to stages of research: planning of research, conduct of research, publishing and application of research results, participation in the research community, and observance of research integrity.

VALUES

The most essential values of research integrity are freedom, responsibility, honesty and objectivity, respect and caring, justice, openness and cooperation. It should be kept in mind that none of these values is absolute – they may come into conflict between one another and, depending on the situation, researchers have to choose which of the conflicting values are more essential in the particular situation. After moral consideration, balance should be found between different values. If setting one of the conflicting values higher in the hierarchy, the protection of the less important value should still be ensured.

1. **Freedom** means that the researcher
   - is free to choose the research problem or hypothesis;
   - is free to search for new research ideas and critically assess the existing ones;
   - is free to choose the research group, research institution or sources of financing.

2. **Responsibility** means that the researcher
   - is responsible for the results and consequences of the research and is aware that his/her work and decisions can influence other people and future generations;
   - avoids harming people, society and nature, and informs the public about potential threats;
   - follows all the pertinent rules in research and, in the absence of precise rules, follows the good practice of research;
   - is aware that his/her conduct serves as a model for the present and future generations of researchers.

3. **Honesty and objectivity** mean that the researcher
   - is honest, precise and impartial in all aspects of research activities;
   - does not forge or fabricate data and does not plagiarise;
   - interprets both data and research results objectively, not arbitrarily;
   - acknowledges his/her errors and, if necessary, reassesses his/her earlier work in the light of new research results.

4. **Respect and caring** mean that the researcher
   - shows respect to his/her teachers, students, colleagues and cooperation partners and avoids causing unsubstantiated harm to their interests;
   - respects the dignity, autonomy and privacy of persons involved in research;
   - is caring to experiment animals, avoids unsubstantiated harm to them and ensures their wellbeing;
   - respects life and maintains a careful attitude to the environment, biosphere and biodiversity;
   - honours cultural diversity and maintains a careful attitude to the material and spiritual heritage of humankind.

5. **Justice** means that the researcher
   - treats all colleagues and cooperation partners equally; while acknowledging colleagues, the researcher considers their actual contribution to research;
   - in his/her judgements concerning research, is not influenced by the other person's gender, age, nationality, race, religion, school, status or other features that are not relevant to the judgement;
   - is aware of the possible conflicts of interests and gives timely notice of them;
   - uses the available resources efficiently, sparingly and purposefully;
   - takes care that the distribution of resources is transparent and everyone has equal opportunities to apply for them.

6. Openness and cooperation mean that the researcher

- is open to cooperation with partners;
- takes care for the good creative work environment;
- strives for transparency in research and shares information about the aims, financing and methods of his/her research, and about the course of analysis.
- is open to share ideas, data and research results with others;
- assesses critically his/her own and others' research and is open to substantiated criticism.

PRINCIPLES OF ACTION

The principles of research integrity concentrate on what researchers or research institutions should do to follow the values of research integrity. At the same time, it should be remembered that the activities of individual researchers and research institutions are influenced by many other institutions (e.g., financers and assessors) and the environment where they operate. Researchers can do research in research groups with many partners from home and abroad who can have different objectives and interests. In research groups, each of their members is responsible for following research integrity. Although the leader of the research group may have greater responsibility for the conduct and coordination of research, this does not diminish the responsibility of other group members.

Research integrity contains principles of different concreteness or generality by which conduct of research should be guided. The more concretely formulated principles are those about which there is greater unanimity among the research community or which are derived from valid laws and international agreements. In the case of more generally worded principles, the researcher and the research institution have more freedom to decide how to best achieve the formulated ideal. It should also be considered that actual life is often more complex and diverse than a document that envisages ideals can describe. In the case of conflicts between principles and novel situations not covered by the research integrity document, researchers and research institutions have leeway to make the best possible choice in a complex situation.

The principles of research integrity give instructions how to make choices in research so that they would not harm the reliability of the researcher, the research institution or research as a whole. In such situations, it may be difficult to give a clear and unambiguous assessment of the ethicality of actions and choices. It is essential that all choices would be well-weighed, substantiated and based on the values of research integrity.

1. PLANNING OF RESEARCH

Planning of research includes setting the aim of research, choice of the method, application for resources, and consideration of ethical and legal requirements. While planning, one should consider the useful and harmful impact of research on any of the parties involved in research: the persons involved in research, the future generations, natural and cultural environment, indigenous peoples, humankind and the Estonian society, the research community and research institutions.

RESPONSIBILITY OF THE RESEARCHER

1.1 What are the framework requirements for research integrity?

1.1.1 When planning research, the researcher considers the conventions and requirements of his/her research area.

1.1.2 The researcher acts in conformity with the valid principles of research ethics, standards and legal regulations, and obtains the necessary permits, approvals and consent of the ethics committee.

1.1.3 The researcher takes into consideration that the rules and conditions applying to international partners can differ from those of his/her own research institution and agrees with the partners on the regulations and standards that should be jointly followed and how to prevent potential problems.

1.1.4 During the whole research process, from planning to publication of results, the researcher assesses the conformity of research with valid requirements and regulations. If conflicts emerge, s/he informs colleagues and cooperation partners and ensures the honest and transparent solution of problems.

1.1.5 The researcher avoids agreements which groundlessly limit the application and dissemination of research data or results.

1.1.6 The researcher takes care that the intellectual property created during research receives necessary protection and agrees as early as possible with cooperation partners to whom the corresponding rights belong.

1.2 What should be considered when setting the aims for research?

1.2.1 The researcher weighs how necessary and substantiated the planned research is.

1.2.2 In research, the researcher strives for social benefits and acts for the good of humankind. S/he assesses the potential beneficial and harmful impact of the planned research and whether the expected benefits outweigh the threats of potential damage and misuse.

1.2.3 The researcher keeps in mind the planned and unplanned ways of application of research results, including the possibilities of misuse and double use. In the case of risks, the researcher informs, depending on circumstances, the colleagues, the research institution, the ethics committee, the financers of research and other parties involved in research.

1.2.4 If necessary, the researcher involves in planning, in addition to colleagues, the persons or groups influenced by the planned research.

1.2.5 The researcher is free to decide whether to participate in research if s/he does not agree with its objectives or potential application.

1.2.6 As the leader of a research group, the researcher takes care that all the members of the research group are aware of the objectives of research, its financers, possibilities of application of results and threats of misuse.

1.3 What should be considered when choosing the method?

1.3.1 The researcher decides which methods and which sample are appropriate for achieving the objectives of research, considering data protection regulations and ethical and legal restrictions.

1.3.2 The researcher weighs the potential ethical and research problems related to the method and the sample, uses vulnerable groups or individuals in research only in well-grounded cases and avoids questionable, outdated, misleading and unscientific methods.

1.3.3 The researcher ensures the methodological transparency of research and describes the stages of data collection and their analysis as exactly as possible.

1.3.4 The researcher assesses whether research objectives can be achieved by reuse of data or new data have to be collected. To use public data collections as broadly as possible and to save resources, the researcher prefers reuse of data if research questions make it feasible. If personalised data are reused, the researcher follows the regulations and restrictions of data protection.

1.4 What should be considered when applying for resources?

1.4.1 The researcher assesses the sufficiency of the existing and applied for resources for achieving the aims of research and avoids giving unrealistic promises to financers and the society.

1.4.2 The researcher informs financers about co-financing and avoids applying for double financing for the same activity.

1.4.3 The researcher is free to decide from which partners to accept financing and avoids sources of financing that would compromise the autonomy of the researcher or research group members or harm the impartiality of research results.

1.4.4 The researcher adheres to the conditions related to financing and, in the case of co-financing, informs the financers, colleagues and partners about the potential contradictions between different conditions.

RESPONSIBILITY OF THE RESEARCH INSTITUTION

1.5 What should be considered when planning research?

1.5.1 The research institution honours the researcher's freedom to choose the aims and methods of research. If the research institution considers it necessary to support and direct the researcher's activity by selecting and developing certain prioritary trends of research, the decision process must be involving, clear and transparent, considering the mission and tasks of the research institution, the need to maintain continuity and to create a flexible career model.

1.5.2 The research institution supports open and exploratory research, favouring the research of new themes, new research projects, application of different methods and initiation of new trends in research.

1.5.3 The research institution ensures the protection of intellectual property in its possession and, if necessary, supports researchers in questions related to intellectual property.

1.6 What should be considered to ensure transparent and fair financing?

1.6.1 The research institution provides open and equal access of all researchers to the information about financing.

1.6.2 The rules of the research institution for allocating research funding are substantiated, transparent and public.

1.6.3 The principles of selection of financing and the financer are agreed at the research institution and made public.

1.6.4 The research institution ensures that, if research is conducted jointly by several research groups, the expenses and potential benefits related to research are divided fairly between all the participants.

2. CONDUCT OF RESEARCH

In addition to collection and analysis of data, conduct of research includes the questions of safety, security and ensuring the wellbeing of the persons and animals involved. The rights and interests of persons involved in the research must also be considered.

RESPONSIBILITY OF THE RESEARCHER

2.1 How to treat persons involved in research?

2.1.1 The researcher respects the free will of persons involved in research and ensures the protection of their autonomy, human dignity, privacy and wellbeing, avoiding harming them.

2.1.2 In immediate studies of people and collection of personal data from them, the researcher always asks for their prior informed consent and ensures that the subject's consent is informed and voluntary. Exceptionally, asking for consent is allowed after the collection of data if this is necessary for achieving the aims of research, but then it should be considered that the collection of data would not harm the persons involved in the study, and it would have prior consent from the ethics committee.

2.1.3 The researcher informs the subjects about the research objectives, the benefits and risks, who is conducting the study and who is financing it, which data are collected from them, who can access the data, in what form and how long the data are stored, and what happens to occasional findings.

2.1.4 The researcher informs the subjects about their right not to participate in the study and to withdraw their consent and about any other circumstances that can influence the subject's consent to participate in the study.

2.1.5 The researcher inconveniences the subjects and groups involved in research as little as possible.

2.1.6 The researcher assesses the vulnerability and risks of persons and social groups involved in research, protecting them from potential stigmatisation, marginalisation or damage to their interests. The researcher takes care that the subjects' wellbeing will not suffer after the end of research because of participation in it.

2.1.7 The researcher shares the benefits resulting from research fairly with all participants in research without whose participation or traditional knowledge the benefits of research would not have materialised. S/he ensures that the positive influences of research on vulnerable groups would be realised.

2.1.8 If research is conducted in developing countries, the researcher is obliged to ensure that the benefits resulting from research will reach the community.

2.2 What are the principles of analysis of research data?

2.2.1 The researcher does not falsify data, does not arbitrarily complete incomplete data and does not fabricate data.

2.2.2 When using data, the researcher is critical, does not draw unsubstantiated conclusions from them, does not make unsubstantiated assessments, does not present examples selectively and does not use the analysis of data in a biased way.

2.2.3 The researcher records the collection and analysis of data as precisely as possible and ensures the transparency of data analysis so that the quality of the data could be checked and, if necessary, their analysis be repeated.

2.2.4 The researcher describes and formats the collected data so that they could be used as openly and broadly as possible, and refers to the used data accurately.

2.2.5 In research, the researcher follows the principles and regulations of protection of personal data.

2.2.6 The researcher ensures as broad access to data as possible, considering the substantiated limitations of access to the data resulting from the need to protect personal data, promises given to the subjects and the interests of research.

2.2.7 The researcher, in cooperation with the research institution, stores research data as long as possible; when setting the storage time, s/he considers the value of data for research, the conventions of one's research area, the physical and technological facilities of the research institution and agreements with subjects or holders of data. The researcher stores personalised data as long as necessary and as briefly as possible.

2.2.8 When storing and using data, the researcher ensures their integrity and safety and, if necessary, ensures the safe and proper destruction of data.

2.2.9 The researcher takes care that research data could be found and used as easily as possible.[5]

2.3 How to ensure the safety of research?

2.3.1 In the framework of research, the researcher ensures the protection of health and wellbeing of him-/herself and all the participants in research and persons involved in research.

2.3.2 The researcher is obliged to assess the risks related to research, be aware of them and take measures to prevent risks. S/he also informs the colleagues and the research institution of the potential threats and safety hazards.

2.3.3 If new risks and threats emerge, the researcher assesses whether research can be continued in its earlier form without harming anyone's health and wellbeing and, if necessary, changes the conduct of research.

2.3.4 The researcher is responsible for the safety of the work environment and ensures that unauthorised persons' access to hazardous substances, equipment and organisms and to confidential information is restricted.

2.3.5 The researcher respects the integrity of natural environment and spiritual and material heritage, and removes objects under study from their original environment only in substantiated cases.

2.3.6 The researcher avoids damaging the natural environment and cultural heritage. If endangered species, protected monuments or areas are studied, the researcher applies for the necessary permits and coordinations.

2.4 What should be considered in animal experiments?

2.4.1 The researcher ensures the wellbeing of the animals participating in research, and, in planning and conduct of animal experiments, is guided by the 3R principle[6]: if possible, replaces animal experiments with alternative techniques, reduces the number of animals to the smallest possible and refines the procedures of research to diminish the current and future sufferings and pain caused to animals. If possible, the researcher uses species less sensitive to pain.

2.4.2 The researcher takes care of the good living conditions of experiment animals and ensures their maximum wellbeing during experiments, breeding, keeping and transport.

2.4.3 The researcher conducts experiments with animals only when having the necessary permits.

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5 The guiding principes could be FAIR principes – Findable, Accessible, Interoperable and Re-usable data. *The FAIR data principles*. https://www.force11.org/group/fairgroup/fairprinciples (accessed 24 October 2017).

6 3 R's (the Three R's) Principles is an abbreviation that signifies three principles: Replacement, Reduction, Refinement. *Replacement, Reduction and Refinement – the "Three Rs"*. http://ec.europa.eu/environment/chemicals/lab_animals/3r/alternative_en.htm (accessed 24 October 2017).

RESPONSIBILITY OF THE RESEARCH INSTITUTION

2.5 How to ensure the safety of research?

2.5.1 The research institution ensures that all the handlers of hazardous materials, organisms and equipment have the necessary knowledge, skills and devices for safe conduct of research.

2.5.2 In the case of severe danger, the research institution informs all the endangered persons publicly and acts as quickly as possible for elimination of danger.

2.6 How to support the administration of research data?

2.6.1 The research institution supports the responsible administration of data and research materials by providing the necessary infrastructure, training and guidelines.

2.6.2 The research institution ensures that limitations to the use of data would be substantiated and fair and that information about the usability of the data held by the institution and the corresponding intellectual property rights would be easily accessible.

2.6.3 The research institution ensures that data with essential influence on the society or natural environment are preserved and are available for as long as possible.

3. AUTHORSHIP, PUBLISHING AND APPLICATION OF RESEARCH RESULTS

In publishing and application of research results, it is essential to consider the interests and rights related to authorship, intellectual property and acknowledgement of all the researchers and cooperation partners who have contributed to research. Research results can be applied for social or commercial purposes, including in contribution to innovation, development of teaching, patenting of inventions, cooperation with entrepreneurs and other parties outside the research community. The greater the number of people who have contributed to publishing and application of research results, the more essential it is to reach an agreement on these questions to avoid damage to mutual cooperation and reliability of research.

RESPONSIBILITY OF THE RESEARCHER

3.1 Who is the author of the research publication?

3.1.1 The author(s) of the research publication are the person or persons who have created the work and have been named as its author(s).

3.1.2 The researcher agrees on the authorship of the research publication with persons who contribute to the creation of the publication, generally presuming that they meet all the following criteria:

"• Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or revising it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved."[7]

3.1.3 The researcher can also agree on the authorship of the research on other principles if the contribution of each author is clearly identifiable and pointed out, and each author is individually responsible for his/her part.

3.1.4 The researcher discusses the attribution of authorship of the research publication, the sequence of authors and other questions related to publishing with all colleagues and partners who contribute to the research.

3.1.5 The researcher coordinates the changes made in the manuscript with all the other authors.

3.1.6 The researcher has the right to withdraw authorship if s/he does not agree with some part of research or is not willing to be responsible for the content of the whole publication. Nonetheless, his/her essential contribution should be mentioned, if possible, e.g., in acknowledgements.

3.2 How to acknowledge the contribution of third persons to the research publication?

3.2.1 In the publication, the researcher acknowledges the persons who do not meet the criteria of authorship but who have contributed to the conduct of research and completion of the research publication, and notes their role and contribution.

3.2.2 The researcher does not use authorship in exchange for data, use of equipment or any other benefits.

3.2.3 The researcher publicises the financers and supporters of research, limitations of the research and other information that can influence the reliability of research.

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7 The criteria have been quoted from the recommendations of the International Committee of Medical Journal Editors. *Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals*. (2016) http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html (accessed 24 October 2017).

3.3 What should be considered when publishing research results?

3.3.1 The researcher is responsible for the up-to-date, precise, honest and transparent presentation of research results and data.

3.3.2 The researcher refers accurately to his/her own and other researchers' earlier published and unpublished works according to the conventions of the research area and instructions of the research institution, publication or publisher.

3.3.3 The researcher publicises the repeated use of the same data, interpretation or results in more than one publication, referring to the earlier place of publication.

3.3.4 The researcher also seeks the publication of negative research results to save resources and to avoid needless repetition of research.

3.3.5 The researcher informs the publication or the publisher about errors discovered after publishing. In the case of essential shortcomings, the researcher applies for the retraction of the publication.

3.4 Which recommendations and restrictions should be considered at publishing?

3.4.1 The researcher avoids publishing in a publication if doubts emerge about the reliability of the publication or the publisher or the quality of peer reviewing.

3.4.2 If other conditions are equal, the researcher prefers open-access journals.

3.4.3 The researcher takes care that scholarly thinking and published research results would reach the broad public and, if necessary, cooperates with parties outside the research community to popularise research.

3.5 What should be considered when submitting research results for publication and reviewing?

3.5.1 The reviewer ensures the quality, impartiality and timeliness of reviewing and keeps the research results that have become known to him/her confidential until their publication.

3.5.2 The reviewer does not use his/her position for imposing his/her own research results and publications on the author with the aim to increase citability.

3.5.3 The author of the research publication does not simultaneously submit the same article to several journals for reviewing and publication.

3.5.4 If the research publisher has forwarded the reviewers' feedback and proposals for corrections and promised to publish the corrected publication, the author of the research publication does not change the publisher.

3.6 What is the responsibility of the researcher for the application of research results?

3.6.1 The researcher considers it essential that his/her research results would find socially beneficial application.

3.6.2 The researcher is open for cooperation with other parties to present the possibilities for application of research results and participates in this process if possible.

RESPONSIBILITY OF THE RESEARCH INSTITUTION

3.7 How to support research integrity in publishing?

3.7.1 The research institution supports honest, fair and transparent attribution and acknowledgement of authorship by necessary instructions and training.

3.7.2 The research institution enables to contest authorship and ensures the confidentiality and impartiality of settling of disputes.

3.7.3 The research institution informs researchers about potential threats and gives instructions how to assess the reliability and quality of research journals and publishers.

3.7.4 The research institution provides training and facilities (e.g., plagiarism detector software) for avoiding misconduct and ascertaining it, and supports dealing with such cases.

3.7.5 The research institution encourages researchers to inform about errors discovered later and to correct their errors.

3.7.6 The research institution acknowledges and supports researchers and appreciates the contribution of researchers who popularise their speciality or help to solve problems of social significance.

4. RESEARCHER IN THE RESEARCH COMMUNITY

A conflict of interests can occur at any stage of the researcher's work if the credibility of his/her work or decisions becomes questionable because of competing interests. Decisions not based on the interests of research, use of research resources in private interests, deliberate influencing of the objectivity of decisions, causing deliberate harm to competing researchers or research institutions and more favourable treatment of familiar persons are clearly condemnable. Being aware of potential conflicts of interests is particularly essential as this may be accompanied by the threat of corruption.

The role conflict is a situation where the researcher has to simultaneously consider the conflicting requirements of his/her roles. In addition to being a researcher, the researcher can have other roles in academic or personal life, like being a supervisor, teacher, leader, administrator, expert, populariser of research, parent, spouse, or member of a non-governmental organisation. In these situations, it is very difficult to say which role the researcher should prefer to others. In such cases, it is essential to perform each role as well as possible. Role conflicts tend to grow into conflicts of interests; therefore, they cannot be ignored.

RESPONSIBILITY OF THE RESEARCHER

4.1 How to react if a conflict of interests is suspected?

4.1.1 The researcher always reacts if a conflict of interests is suspected in his/her own or colleagues' activities.

4.1.2 If a conflict of interests is suspected, the researcher avoids solving it alone and, if necessary, asks the colleagues or the research institution for advice how to act in such a situation.

4.1.3 The researcher assesses critically the impact of the conflict of interests on his/her own and the colleagues' decisions, taking into consideration that not all the conflicts have an inappropriate influence on decisions.

4.1.4 The researcher protects the confidential information that has become known to him/her during the disclosure of a conflict of interests.

4.2 How to act in the case of a conflict of interests that concerns oneself?

4.2.1 The researcher develops awareness of risks related to conflicts of interests and prevents them and does everything depending on him/her to ensure the objectivity of his/her decisions.

4.2.2 The researcher discloses all the conflicts of interests related to research in good time and informs colleagues and cooperation partners about conflicts of interests that can occur during research, at the same time considering the possible restrictions resulting from confidentiality.

4.2.3 As an author, the researcher informs the journal or the publisher about all the monetary or other interests and personal relations that can influence the reliability of the research to be published.

4.2.4 As a reviewer, the researcher informs the journal or the publisher about any circumstances that can influence the impartiality or reliability of his/her review. In the case of a significant conflict of interests, the researcher withdraws from reviewing.

4.2.5 As an expert, the researcher informs the institution asking for expert opinion about any competing or private interests that may compromise his/her independence and impartiality.

4.2.6 In the case of an essential conflict of interests, the researcher resigns from the position of a decision-maker, assessor or expert. If the researcher still continues in the role of a decision-maker or assessor, s/he has to substantiate his/her decision to all the parties honestly and clearly.

4.3 How to create and keep good collegial relations?

4.3.1 The researcher develops awareness of his/her different roles and their requirements and addresses the tensions resulting from role conflicts, considering the human dignity of all the parties and the principles of research integrity.

4.3.2 As a colleague, the researcher is helpful, polite and considerate to all colleagues and avoids discriminatory and groundlessly different treatment of colleagues.

4.3.3 The researcher as a teacher and supervisor communicates with students and supervisees cooperatively; agrees on how and in which aspects s/he supports the supervisee, supports the supervisee's development at work and acknowledges the supervisee's progress.

4.3.4 The researcher regards his/her supervisor(s) and supervisee(s) respectfully, acknowledging and thanking them for their support to the research and personal development of the researcher.

4.4 How to promote critical discussion in the university and in the society?

4.4.1 The researcher assesses critically colleagues' research and gives substantiated feedback to their work regardless of the colleagues' academic status, research achievements or work experience.

4.4.2 The researcher acts as an expert only in questions where s/he can rely on scientific knowledge and his/her research, making a difference between personal opinion and expert assessment.

4.4.3 When making presentations to the public, the researcher states clearly whether s/he represents his/her personal views or the official views of the research institution.

RESPONSIBILITY OF THE RESEARCH INSTITUTION

4.5 How to prevent and deal with conflicts of interests?

4.5.1 The research institution consciously prevents conflicts of interests when electing or appointing researchers to their posts, allocating resources and acknowledging researchers.

4.5.2 In decisions regarding the institution, the research institution ensures the transparent, impartial and fair solution of conflicts of interests.

4.5.3 The research institution enables all staff members to report confidentially about conflicts of interests.

4.5.4 The research institution creates instructions and guidelines needed for recognising and dealing with conflicts of interests and provides the necessary training.

4.5.5 The research institution establishes common principles defining in which cases the researcher can work in his/her speciality outside the research institution, and for which research done outside the research institution the researcher can ask for remuneration.

4.6 How to create a good work environment?

4.6.1 The research institution supports open and cooperative organisational culture which supports everyone's development.

4.6.2 The research institution provides favourable conditions to researchers for combining and balancing different roles and obligations.

4.6.3 The research institution ensures a safe work environment and equal treatment to all its staff members, considering any bullying and harassment unacceptable. The research institution establishes a procedure for dealing with breaches of equal treatment and other good collegial relations and bullying at work.

5. OBSERVANCE, PROMOTION AND APPLICATION OF RESEARCH INTEGRITY

Learning and observance of principles of research integrity is the obligation of every researcher. The research institution can support and promote this by shaping an environment that fosters the observance of research integrity. Each researcher can be ultimately responsible only for his/her own choices and decisions. Still, research integrity does not achieve its aims if it is followed only by a few researchers, if researchers are not aware of research integrity, if they consider its observance burdensome or unnecessary. Therefore, the task of the research institution is to support researchers and make sure that the principles of research integrity are actually followed. Researchers must have the possibilities of asking for advice and informing confidentially about possible breaches of principles of research integrity. The research institutions have the right to decide what the fair and proportional reaction is to breaches of principles of research integrity and which procedural rules are the most appropriate for dealing with suspicions of breaches.

RESPONSIBILITY OF THE RESEARCHER

5.1 How to promote the principles of research integrity?

5.1.1 The researcher follows the principles and values of research integrity and presumes that his/her colleagues also follow them.

5.1.2 The researcher keeps him-/herself informed about the principles of research integrity and regulations concerning research.

5.1.3 Colleagues set an example to one another with their behaviour, supervise and advise one another on following the principles of research integrity.

5.1.4 Supervisors and leaders of research groups take care that the research supervised by them is in conformity with the principles of research integrity and ensure that the colleagues supervised by them are aware of the standards and regulations concerning research.

5.2 How to react to probable breaches of principles of research integrity?

5.2.1 The researcher informs colleagues or the research institution about probable breaches of principles of research integrity and, if in doubt, asks for advice.

5.2.2 The researcher avoids baseless malevolent or self-seeking accusations against colleagues and considers such accusations contradictory to integrity of research.

5.2.3 The researcher is open and gives explanations about all suspicions concerning his/her breach of principles of research integrity.

RESPONSIBILITY OF THE RESEARCH INSTITUTION

5.3 How to promote research integrity?

5.3.1 The research institution provides both students and researchers with training and the necessary auxiliary materials and instructions for following the values and action principles of research integrity.

5.3.2 The research institution supports leaders of research groups and supervisors so that they could set an example and be mentors to colleagues in following the principles of research integrity.

5.3.3 The research institution acknowledges researchers who excel in promoting and disseminating research integrity and also communicate their viewpoints to the public.

5.4 How deal with breaches of principles of research integrity?

5.4.1 The research institution creates clear guidelines for reporting on possible breaches of principles of research integrity and defines clearly who should be approached in the case of suspicions and questions.

5.4.2 The research institution establishes the order of dealing with suspicions of breaches, agrees on sanctions and ensures that the procedures are fair, impartial and transparent. If breaches, including malevolent accusations, are discovered, the research institution applies sanctions agreed upon in relation to the person who breaches research integrity or presents a malevolent accusation.

5.4.3 The research institution protects bona fide whistleblowers, ensures the confidentiality of dealing with possible breaches and protects the dignity and inviolability of private life of all the parties involved.

5.4.4 The research institution reacts to ascertained breaches immediately, considering the severity of the breach, the earlier conduct of the transgressor, and differentiating between deliberate breaches and honest errors.

5.4.5 The research institution ensures access to information about earlier proceedings and ensures that public information honours the privacy and human dignity of all parties.

ISBN 978-9985-4-1082-0