

Guidelines for Safeguarding Good Scientific Practice at the Ruhr University Bochum

Pursuant to sec. 2 para. 4 in conjunction with sec. 4 para. 4 of the Act on the Higher Education Institutions of the Land of North Rhine-Westphalia (Gesetz über die Hochschulen des Landes Nordrhein-Westfalen, HG) in the version of the Amendment to the Act on the Higher Education Institutions of 1 December 2021 (GV NRW p. 1210a), the following Guidelines for Good Scientific Practice at the Ruhr University Bochum have been adopted:

With the following guidelines, the Ruhr University Bochum defines the principles for ensuring Good Scientific Practice and the proceedings in cases of scientific misconduct with reference to the Code of the German Research Foundation (DFG) issued in in 2019 and the legally binding obligation to implement it:

Table of Contents

I.	Section: Principles of Good Scientific Practice	2
1.	General Principles	2
2.	Professional Ethics	2
3.	Organisational Responsibility of the Rectorate, the Faculties and the Work Units	2
4.	Supervision of Early Career Researchers.....	2
5.	Abuse of Power	3
6.	Performance Dimensions and Evaluation Criteria	3
II.	Section: Good Scientific Practice in the Research Process.....	3
7.	Research Design and Quality Control.....	3
8.	Legal and Ethical Frameworks, Rights of Use	3
9.	Documentation and Archiving.....	4
10.	Public Access to Research Findings	4
11.	Authorship.....	4
12.	Publication Body	5
13.	Peer Review and Advisory Procedures.....	5
III.	Section: Procedural Principles in the Case of Alleged Scientific Misconduct.....	5
14.	Scientific Misconduct	5
15.	Reporting Alleged Misconduct	5
16.	The Ombuds Office for Good Scientific Practice	6
17.	Proceedings.....	7
18.	Commission of Inquiry	7
19.	Transparency of Proceedings	8
20.	Corrective Measures in the Event of Proven Scientific Misconduct	8
IV.	Section: Publication.....	8

I. Section: Principles of Good Scientific Practice

1. General Principles

The Ruhr-University Bochum (RUB) will, to the extent of its powers, ensure that its members and staff as well as other persons working in its institutions follow the principles of Good Scientific Practice on their own responsibility. This includes that:

- work is carried out according to the rules that are recognised as scientific standard in the respective scientific disciplines and that no results are falsified or invented,
- intellectual property of third parties is not infringed upon,
- the scientific work of third parties is not impeded,
- any obtained results are questioned, and critical discourse is encouraged.

2. Professional Ethics

The fundamental values and standards of Good Scientific Practice are communicated as early as possible in academic teaching and training. Academics put them into practice on their own responsibility and regularly update their knowledge of standards and research subjects. This goes hand in hand with a continuous, peer-to-peer learning and training process among academics at all career levels.

3. Organisational Responsibility of the Rectorate, the Faculties and the Work Units

- (1) In their organisational structure, the Rectorate and Faculties create the framework for compliance with legal and ethical standards and are responsible for communicating and adhering to the rules of Good Scientific Practice as well as providing career assistance to their researchers and academic support staff. Managerial, supervisory, quality control and conflict resolution responsibilities are clearly assigned. The framework conditions include clearly defined procedures for staff recruitment and development, promotion of early career researchers and equal opportunities, as well as diversity. The relevant processes are communicated to the community, are transparent and minimise unconscious bias and prejudice to the greatest extent possible.
- (2) In the individual work units, the managerial staff bears responsibility for the unit as a whole. Collaboration is clearly defined and coordinated, and the members are aware of their respective roles, rights and duties. The transfer of competencies, academic supervisory and mentoring duties, as well as, to an increasing extent, personal responsibility and independence are of particular importance in the group, especially with regard to the career development of researchers and academic support staff.

4. Supervision of Early Career Researchers

- (3) The promotion of early career researchers is of paramount importance. The training and promotion of early career researchers is a cross-sectional task shared by the institution, the work units and the supervising researchers.

- (4) The rules of Good Scientific Practice must be communicated to early career researchers, supervision structures and concepts must be in place, and profound career guidance, mentoring and further training opportunities must be provided.
- (5) Working groups must be organised in such a way that responsibilities are clearly assigned and awareness of them is ensured.

5. Abuse of Power

Abuse of power and the exploitation of power structures must be combated at all levels by adopting adequate organisational measures. This includes the provisions set out in the RUB's Compliance Guideline.

6. Performance Dimensions and Evaluation Criteria

When assessing the performance of academics, additional performance dimensions (teaching, academic self-administration, public relations, transfer activities in the economic and social spheres, as well as academic attitude) are included in addition to purely academic performance in the specific academic discipline. Originality and quality take precedence over quantity. In addition to general principles of equal opportunities relating to personal and family circumstances or health conditions, other CV details that are indicated on a voluntary basis may also be taken into account in the assessment process.

II. Section: Good Scientific Practice in the Research Process

7. Research Design and Quality Control

- (1) Developing methods and standards in accordance with strict quality control is an important cornerstone of academic research. Research projects must be planned according to the latest level of knowledge and applicable standards. To this end, RUB shall provide the framework conditions necessary to search for research outputs that have been released to the public. Methods to avoid (unconscious) bias in the interpretation of findings, e.g. blinding of experimental series, shall be applied wherever possible. Roles and responsibilities in research projects are to be clearly defined and modified in the event of changes to the project. Research projects should be reviewed to determine the extent to which gender and diversity may be significant, e.g. for the methods, the work programme or the objectives.
- (2) The methods applied and the software used in the project, both software that is publicly available and software that is programmed in-house (persistent source code, documented and citable), must be presented, if they are not generally known to the scientific community. The origins and nature of all research methods, materials, data and results must be described in a way that allows verification. Inconsistencies or errors discovered after publication must be corrected immediately, either by correcting the erroneous information or by withdrawing the publication in question.

8. Legal and Ethical Frameworks, Rights of Use

- (1) Rights and duties resulting from legal requirements (ethical votes, approvals of animal testing) or contracts with third parties shall be observed and research implications as well as

potential for misuse (dual use) shall be taken into account from an ethical point of view and safeguarded by binding principles and organisational structures that guarantee the compliance with research ethics.

- (2) Rights of use of research data, including by third parties, must be clearly defined and documented at the earliest possible stage, with the right of use accruing primarily to the parties collecting the data.

9. Documentation and Archiving

- (1) Full documentation of data relevant to publication shall be carried out, if collected in the context of the relevant research project. A selective approach to results is not permitted, and results that do not support the research hypothesis must be documented in an appropriate manner. If the documentation of research results deviates from professional recommendations on documentation, the deviations and reasons for them shall be clearly stated.
- (2) Primary data obtained from the institution's own research activities shall be archived for an appropriate period of time, depending on the respective discipline; as a rule, the data shall be retained for ten years from the date on which public access was granted at the institution where the data was generated or in repositories at different locations, if the data constitutes the basis for publications. The institution shall ensure that the necessary infrastructure for archiving is in place. Shorter retention periods or the non-retention of certain data must be duly justified.

10. Public Access to Research Findings

Complete and correct public access to research results, the researchers' own previous work and that of third parties, including the traceability of work processes and the re-usability of data, materials, methods and software, including a persistent source code, constitutes an important foundation for the progress of science and shall therefore be the rule, to the extent that this is possible and reasonable; restrictions can only be imposed with due justification provided by the researchers, without interference from third parties, or on the basis of patent law or other contractual regulations, e.g. within the framework of industrial collaborative research. Unreasonably fragmented publications as well as the repetition of previously published content shall be avoided. Rather, the latter are to be duly cited.

11. Authorship

Only a person who has made a genuine, demonstrable contribution shall be considered to be the author. Inaccurate statements of authorship or co-authorship including so-called honorary authorship (e.g. solely due to managerial or supervisory functions) are inadmissible.

The decisive factor for authorship is a scientifically relevant contribution to the

- development and conception of the research project and/or
- development, collection, procurement, provision of data, software, sources and/or
- analysis/evaluation resp. interpretation of the data, sources and the conclusions drawn from them and/or
- writing of the manuscript.

Any other contributions may be presented in footnotes, forewords or acknowledgements.

The parties involved shall jointly agree on authorship and determine the order of authorship on the basis of transparent criteria in good time, but no later than at the time of the first draft of the manuscript. All authors shall agree on the final version and bear joint responsibility for the content as a whole, unless it is explicitly stated otherwise in the publication. Without a sufficiently verifiable reason (criticism of data, methods or results), consent to the publication of results may not be withheld.

12. Publication Body

The authors shall carefully select their publication organ according to quality criteria, probity and visibility. Essential criteria are the publication bodies' own guidelines on Good Scientific Practice and their implementation in practice. In addition to scientific journals and books, it may also be possible to take into consideration specialist repositories, data and software repositories as well as blogs, which are to be evaluated according to the same quality standards. Ultimately, the quality of a publication shall not be judged by the publication medium, but by its scientific content.

13. Peer Review and Advisory Procedures

Peer reviews for journals, funding institutions, academic institutions or academic advisory and decision-making bodies are subject to strict confidentiality and disclosure of any bias. Dissemination and use of content for one's own purposes constitute violations of Good Scientific Practice.

III. Section: Procedural Principles in the Case of Alleged Scientific Misconduct

14. Scientific Misconduct

Falsification, Fabrication, Plagiarism, Appropriation and Suppression

Scientific misconduct is deemed to have occurred if, in a context relevant to the field of science, false statements are made deliberately or through gross negligence, the intellectual property of others is infringed or their research activities are impaired. The decisive factor in each case is the circumstances of the individual case. Accordingly, scientific misconduct is to be assumed in the following cases in particular:

- falsification or fabrication of scientific data
- exploitation of scientific findings, hypotheses, doctrines or research approaches of third parties by claiming authorship (plagiarism)
- unauthorised exploitation of research approaches and ideas of third parties, including as a reviewer or supervisor of scientific research work
- unauthorised appropriation, damage or alteration of third parties' work equipment, results and documents
- unauthorised publication and unauthorised disclosure of the scientific findings of others
- suppression, obstruction and delay of the publication of scientific results.

15. Reporting Alleged Misconduct

- (1) Academics who provide concrete information about suspected scientific misconduct (whistleblowers) must not suffer any disadvantages to their own academic and professional career as a result. Likewise, the report alone must not result in any such disadvantages for the persons subject to the allegation.

- (2) The whistleblower must make the report in good faith and on the basis of objectively substantiated evidence. Accusations must not be made unchecked and without sufficient knowledge of the facts. Careless handling of allegations of scientific misconduct, and even more so the deliberate levying of incorrect allegations, may itself constitute a form of scientific misconduct.
- (3) The presumption of innocence must be upheld until formal proof of misconduct is provided.
- (4) Reports are to be treated confidentially by all parties involved. The name of the whistleblower will only be disclosed if there is a legal obligation to do so or if the person subject to the allegations cannot otherwise defend themselves adequately. Before the name of the whistleblower is disclosed, they will be informed of this without delay. The whistleblower may decide whether to withdraw their allegations in light of this information.
- (5) The review of anonymous reports must be weighed up by the office receiving the allegation. It shall only be reviewed in due process if reliable and sufficiently substantiated facts have been presented.
- (6) The DFG's current standards can be consulted when reviewing and interpreting scientific misconduct.
- (7) In addition to the Ombudsperson's Board of their own university, all members and affiliates can alternatively contact the independent "German Research Ombudsman".
- (8) In allegations that directly concern proposals, reviews or funding of research projects by the DFG, information can be submitted directly to the DFG Head Office, specifically to the Research Integrity Unit.
- (9) The Ombuds Office, the Ombudsperson's Board and the Commission of Inquiry shall be communicated on the RUB homepage.

16. The Ombuds Office for Good Scientific Practice

- (1) The Rectorate appoints four Ombudspersons. The Ombudspersons may not at the same time be members of a central governing body at RUB. The term of office is four years. A further term of office is possible. They should be internationally respected academic figures with management experience. These four Ombudspersons form the Ombudsperson's Board for Good Scientific Practice at RUB and jointly examine and adjudicate in cases of academic misconduct. The Ombudsperson's Board is responsible for conducting ombuds proceedings, taking preventive measures and advising the competent decision-making bodies on matters of Good Scientific Practice. In its constitution, all academic fields of the RUB, specifically the humanities and social sciences, engineering sciences, natural sciences and medicine, shall be represented. The Ombudsperson's Board shall be composed in equal numbers of male and female members.
- (2) The Ombudsperson's Board shall elect a spokesperson and a deputy spokesperson from among its members. The Ombudspersons also represent each other in the event that they are prevented from attending or are biased.
- (3) The Ombudsperson's Board is advised on legal matters by a lawyer of the University Administration who is competent to hold judicial office.
- (4) In the fulfilment of its duties, the Ombudsperson's Board shall receive any necessary assistance and acceptance from the University. If necessary, measures shall be taken to relieve the Ombudspersons in other ways. The Ombudsperson's Board is assisted by an Office. The Office and Ombudsperson's Board constitute the Ombuds Office for Good Scientific Practice at RUB.

17. Proceedings

- (1) The Ombuds Office shall act as a point of contact for RUB members and staff in the event of actual or alleged scientific misconduct. It advises persons who notify it of suspected scientific misconduct. The Ombuds Office reviews the allegations in terms of plausibility, with regard to their concrete nature and significance and with regard to possible ways of clearing up the allegations.
- (2) The activities of the Ombuds Office shall be carried out in a manner that is impartial, not bound by instructions, not public and confidential. The Ombudsperson's Board may call in witnesses and experts.
- (3) The incriminating facts must be brought to the attention of the persons subject to the allegations. The persons subject to the allegations as well as the whistleblowers must be given the opportunity to comment at every stage of the proceedings.
- (4) The persons subject to the allegations are obliged to cooperate in the investigation of the facts.
- (5) The Ombuds Office shall ensure that the proceedings are started promptly and that the individual procedural steps are completed within a reasonable period of time.
- (6) Obstructive authorship conflicts that cannot be resolved within the authors' team shall be attempted to be resolved by the Ombudsperson's Board through an Ombudsperson's decision. These facts must be stated in the relevant publication.
- (7) The Ombudsperson's Board shall terminate the proceedings if it does not see the suspicion confirmed, if the case could be solved by mediation, or if it is a case of minor misconduct.
- (8) If the Ombudsperson's Board confirms the allegation of scientific misconduct, it shall transfer the proceedings to the Commission of Inquiry.
- (9) The decisions of the Ombudsperson's Board are to be made in writing in each case and must be substantiated.

18. Commission of Inquiry

- (1) If there is a suspicion of scientific misconduct, the Ombudsperson's Board shall transfer the proceedings to the Commission of Inquiry.
- (2) The Commission of Inquiry is composed of five members who are appointed by the Senate for a term of four years on the proposal of the Rectorate. A further term of office is possible. One member must be competent to hold judicial office and one must be a member of the Faculty of Medicine. In addition, all academic fields of the University, the humanities, social sciences, engineering and natural sciences, shall be represented. The Commission shall appoint one of its members as Chair. The Commission may also call in case-specific and discipline-specific expertise from persons outside the university. The Commission of Inquiry shall be composed in equal numbers of male and female members.
- (3) The Commission of Inquiry shall be responsible for the formal investigation of suspected scientific misconduct.
- (4) The Commission of Inquiry may consult Ombudspersons in an advisory capacity. In all other respects, the procedural regulations stated in no. 17 shall apply accordingly.
- (5) In its final report, the Commission of Inquiry shall submit recommendations for further handling of the matter if scientific misconduct has been confirmed. If the suspected misconduct is not confirmed, the proceedings shall be discontinued.

- (6) The competent decision-making bodies, as a rule the Dean or the Rectorate, shall determine whether any further measures are to be taken in accordance with no. 20 and, if so, which.

19. Transparency of Proceedings

- (1) The result shall be communicated to all parties involved after the investigation has been completed. The reasons relevant to the decision shall be stated.
- (2) Scientific organisations concerned in the case and, if applicable, third parties with a justified interest in the decision shall be informed of the outcome.
- (3) In exceptional cases, the University may issue a public statement, e.g. for the protection or rehabilitation of the parties involved.
- (4) The Ombuds Office shall submit an annual report on the activities of the Ombudsperson's Board and the Commission of Inquiry to the Rectorate.

20. Corrective Measures in the Event of Proven Scientific Misconduct

- (1) In cases of scientific misconduct, damage to the persons and institutions concerned and to the scientific community as a whole must be averted or remedied by taking appropriate measures.
- (2) Which measure or sanction is appropriate depends on the type and severity of the scientific misconduct.
- (3) Depending on the circumstances of the individual case, sanctions under service or employment law and academic consequences up to and including the withdrawal of examination results and academic degrees must be considered.
- (4) If scientific misconduct also constitutes an offence under the German Criminal Code (StGB) or other criminal or administrative offence, criminal charges or a criminal complaint shall be filed. In addition, consequences under civil or administrative law may be considered.
- (5) In the case of serious scientific misconduct, RUB shall also inform other research institutions or scientific organisations concerned in the case. It may also inform third parties and the public in order to uphold confidence in academic probity, to restore its academic reputation, to prevent consequential damage and in the general public interest.

IV. Section: Publication

These Guidelines and Principles shall be published in the Official Notice section of the Ruhr University Bochum.

Issued in accordance with the Resolution of the Rectorate of the Ruhr University dated 5 July 2022 and the Resolution of the Senate of the Ruhr Universität dated 14 July 2022.

Bochum, 18.07.2022

The Rector
of the Ruhr University Bochum
University Professor Dr. Martin Paul

After the expiry of one year after the publication of these regulations, any violations of procedural or formal requirements of the Higher Education Act or of the University's regulations or other legislation may only be asserted pursuant to the provisions in sec. 12, para. 5 a) to d) of the Higher Education Act of North Rhine-Westphalia.