KIT – University of the State of Baden-Wuerttemberg and National Research Center of the Helmholtz Association

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Contents

Kindly note that the version in the German language shall be the only legally binding version. The translation into English is to be understood as a service provided for your help.

Rules for Safeguarding Good Scientific Practice

at Karlsruhe Institute of Technology (KIT)

The Senate of Karlsruhe Institute of Technology (KIT) adopted the Rules for Safeguarding Good Scientific Practice at KIT given below on November 17, 2014.

Preamble

Since the beginnings of modern science in the 17th century as a rational means to explore the world and motor of technology and industry, so-called "principles of good scientific practice" have developed. They range from epistemological practices to ethical imperatives, thus covering a broad spectrum of manners constituting scientific practice, its long-term success, and its credibility in society.

The principles are based on the maxims of absolute conscientiousness and honesty to oneself and others when identifying and representing scientific matters, of absolute probity when assigning ideas and findings to their authors in the past and presence, and of comprehensive documentation and representation for the purpose of an open scientific discourse, including reviews and any type of objectively justified criticism of ideas, methods, and results as well as the right to make mistakes in good faith and to error.

This good scientific practice in all its specific dimensions has always been complied with by the large majority of scientists and has been passed on to the younger mainly by the older scientists acting as role models.

In the following sections, the self-commitment to probity in scientific work will be summarized in binding rules for all persons performing scientific work at KIT. Chapter A will describe the principles of good scientific practice. In particular, guidelines for frequently encountered aspects of scientific work, such as protection and use of primary data or publication and authorship, will be formulated. Chapter B will define scientific misconduct and explain it by a number of examples. Chapter C will then outline the process to handle allegations of scientific misconduct. This chapter will mainly specify the role of the ombudspersons in preliminary investigation and mediation and the tasks of the commission for good scientific practice.

More detailed recommendations for safeguarding good scientific practice can be found in the white paper of the German Research Foundation [1] as well as in documents issued e.g. by the German Rectors' Conference [2], the Allgemeiner Fakultätentag together with the German Association of University Professors and Lecturers [3], and the Council of Science and Humanities [4].

Content

A. Principles of Good Scientific Practice

1. General Principles

General principles of good scientific practice shall include:

- Working according to acknowledged, currently valid rules (*lege artis*),
- documenting results,
- consistently questioning all results,
- being strictly honest as regards contributions of partners, competitors, and predecessors.

2. Responsibility

All members of KIT as well as all other persons executing scientific work at KIT shall have a special responsibility for compliance with the principles of good scientific practice by themselves, by students and doctoral students supervised by them as well as by subordinate employees.

3. Organization

By an appropriate organization of their work area, all responsible persons (in particular, Division Heads, KIT Deans, and Heads of Institutes) shall ensure clear assignment of tasks of management, supervision, conflict settlement, and quality assurance and shall guarantee the execution of these tasks.

4. Precedence of Quality over Quantity

Performance and evaluation criteria for examinations, conferrals of academic degrees, promotions, employments, and appointments shall be specified such that originality and quality always have precedence over quantity. As a matter of priority, this shall also apply to the performance- and load-oriented allocation of funding in research. Reviewers of scientific work shall use a transparent evaluation system and retain their independence as examiner/s. This shall also include unprejudiced evaluation.

5. Open Scientific Discourse

Good scientific practice is based on the principles of scientific honesty, conscientiousness, probity, and open scientific discourse. This open scientific discourse and its prerequisites shall be protected and conveyed to young academic staff. This shall include encouragement of objectively justified scientific criticism and diversity of opinions irrespective of the hierarchic positions of the parties, the obligation to accept and quote the priority of others to ideas and results in the past and presence, and the support of the preparedness to accept objective criticism with calmness and to unconditionally admit proven or self-identified own errors and mistakes. Understanding this as an objective element of scientific discourse that does not discredit the person is one of the major achievements of our science culture.

6. Safekeeping and Use of Primary Data

Experiments, numerical calculations, methods, and materials covered by publications or qualification theses shall be summarized in a way that the work can be reproduced at another place. The related primary data, including e.g. measurement results, collections, surveys, questionnaires, as well as cell cultures, material specimens or archeological finds, shall be kept for ten years on durable and secure carriers at the institute, where they have been generated. Retention obligations resulting from legal provisions and measures to protect personal data shall remain unaffected.

The Heads of Institutes shall be responsible for ensuring safekeeping and shall issue appropriate rules. In justified cases, institutes may envisage shorter retention periods for primary data that are not stored on durable and secure carriers.

As a rule, the researchers collecting data shall be entitled to use such primary data first. Use and publication of primary data may be restricted by legal or contractual regulations, e.g. in the case of commercial use. For instance, authorized users under an ongoing research project shall decide on whether third parties shall be given access to the data according to data protection regulations, if applicable. If several institutes are involved in the process of data collection, it is recommended to settle this matter by an agreement. Institutes should also specify rules for the case of a move of team members responsible for the generation of data. Usually, the original data and documents remain with the institute, where the work was performed. However, it is possible to make duplicates or to determine access rights. As for the rest, use of property rights and patents is covered by the *Richtlinie zum Umgang mit Geistigem Eigentum am KIT* [5] (Regulations on the Use of Intellectual Property at KIT).

7. Scientific Publications and Authorship

Scientific publications shall

- completely and reproducibly describe the results,
- completely and correctly document own preceding work and preceding work of others by quotes and references, and
- repeat previously published results in a clearly marked form and to the extent required for understanding the context only.

Authors of scientific publications shall always assume joint responsibility for the contents. Author only shall be a person, who has made a major contribution to a scientific publication. A so-called “honorary authorship” shall be excluded. Neither the position of Head of Institute and superior nor the position of former superior alone shall justify co-authorship.

This means that authors of a scientific original publication shall be all those, and only those, who significantly contributed to the conception of the studies or experiments, to the collection, analysis, and interpretation of the data, and to the formulation of the manuscript and who approved of its publication, i.e. persons who share the responsibility for this publication. The authors shall jointly ensure that no co-author was ignored and that all authors have approved of the version of the publication submitted.

Contributions that are not sufficient alone to justify authorship shall be [1]:

- A merely organizational responsibility for the acquisition of funding;
- supply of standard investigation materials;
- instruction of staff with respect to standard methods;
- technical support of data collection;
- technical support, e.g. supply of instruments and test animals;

- regular supply of data sets;
- reading of the manuscript without any substantial contribution to the content;
- direction of an institution or organizational unit, at which the publication was written.

Such support may be acknowledged in footnotes or in the preface.

8. Standards for Writing Doctoral Theses

Doctoral degree regulations shall define minimum standards for writing doctoral theses. In particular, it shall be ensured that the doctoral thesis can be recognized as original work. Apart from the author, also the supervisors shall be responsible for compliance with the rules for safeguarding good scientific practice. It is to be outlined in the doctoral degree regulations that the doctoral thesis shall be made available to the doctoral examination board in electronic form.

9. Young Scientists

Particular attention is paid to the education and promotion of young scientists. The rules for safeguarding good scientific practice shall be integral constituents of the education of young scientists. Young scientists as well as heads of scientific organizational units shall be committed to observing these rules at the beginning of their work. Suspected violations shall be investigated rigorously.

B. Scientific Misconduct

Scientific misconduct shall be the intentional and grossly negligent statement of falsehoods in a scientific context, the violation of intellectual property rights or impeding another person's research work. In particular, scientific misconduct may include:

Incorrect representation of scientific facts, e.g. by

- inventing/pretending results,
- distorting or suppressing undesired data and results, e.g. by concealing and hiding them,
- intentionally ignoring opposite relevant results of others,
- intentionally distorting the interpretation of results,
- intentionally distorting the reproduction of research results of others.

Deception by intentional misrepresentations, e.g. in

- applications for employment,
- proposals for funding and reports on the use of funding,
- publications, e.g. repeated publications without the respective quotes[1].

Violation of intellectual property rights, e.g. by

[1] This means that copying of larger passages of already published publications or publications in print (also with small cosmetic corrections) or double submission of the same article to various journals shall not be permitted, unless this is documented and quoted.

- unauthorized use following the claim of authorship (plagiarism),
- exploitation of foreign, unpublished concrete ideas, methods, research results or approaches without approval by the authorized user, in particular as reviewer (theft of ideas),
- claim or unjustified assumption of scientific authorship or co-authorship,
- refusal of another person's claim of co-authorship based on reasonable contributions,
- intentional concealing of major relevant preceding work of others,
- intentional or unacceptable delay of a publication of a scientific work, in particular as superior, editor, or reviewer,
- unauthorized publication and unauthorized disclosure to third parties as long as the publication, finding, hypothesis, doctrine, or research approach has not been published.

Use of the (co-)authorship of another person without his/her approval

Sabotage by malicious damage, destruction or manipulation of equipment and materials, e.g. of

- devices and test installations,
- data, documents, and electronic software,
- consumables (e.g. chemicals).

Deletion of original data, provided that legal regulations or discipline-specific, acknowledged principles of scientific work are violated.

Participation in the scientific misconduct of others, e.g. by

- active participation in the misconduct of others,
- knowledge and toleration of the misconduct of others,
- co-authorship of publications containing intentional misrepresentations,
- contribution of texts or passages to the qualification thesis of another person ("ghost writing").

Scientific misconduct as superior, head of institute, head of project

- Gross negligence of supervisory responsibility and quality assurance,
- setup of contractual regulations or giving instructions that are in conflict with the rules of good scientific practice.

C. Procedure for Investigating Scientific Misconduct at KIT

1. Responsibilities

a) Ombudspersons

The KIT Senate shall appoint two ombudspersons from the group of executive scientists (according to Article 14, par. 3, No. 1, KITG) and professors. The ombudspersons shall be first contact partners and responsible for any and all allegations of scientific misconduct to active and former members and employees of KIT. As persons in positions of trust, they shall advise those who inform them about the suspected scientific misconduct of others (whistle-blowers) as well as the persons suspected or accused of misconduct. The ombudspersons shall not be obliged to follow instructions from a higher level. Their term of office shall be two years. Re-appointment shall be possible. The ombudspersons shall report to the Presidential Committee and the KIT Senate annually.

An ombudsperson shall not be permitted to advise or decide, if

1. he/she is accused of scientific misconduct or if the decision of this matter results in a direct legal, economic, immaterial or other advantage or disadvantage for him/her, or

2. the ombudsperson is related to a person specified in clause 1, or

3. the ombudsperson represents a person according to clause 1 by law or authorization or is related to the representing person, or

4. the ombudsperson is employed against payment by a person specified in clause 1 or is in another, in particular economically, dependent relationship to this person.

In case of good cause justifying mistrust in an impartial performance of work as an ombudsperson or if such cause is claimed by an ombudsperson, by the informing person, or by the person accused of scientific misconduct, the other ombudsperson shall take action. If both ombudspersons are accused of a conflict of interest, the KIT Senate shall appoint a substitute person.

b) Commission for Good Scientific Practice

The KIT Senate shall appoint a permanent commission for good scientific practice based on proposals by the members of the respective group in the KIT Senate according to Article 3, par. 2, No. 5 b) – e), No. 6 b) – d) of the Joint Statutes of KIT. When appointing the chairperson of this commission, the Presidential Committee shall have the right of proposal. The commission shall comprise the following members:

- Two professors,
- two executive scientists according to Art. 14, par. 3, No. 1, KITG,
- one member of the group of academic employees according to Art. 52, LHG, and one member of the group of scientific employees according to Art. 14, par. 3, No. 2, KITG,
- if students or administrative and technical staff are affected by scientific misconduct, the KIT Senate shall additionally appoint one of its members,
- an external person qualified to hold judicial office as chairperson.

Both ombudspersons shall be guests of the commission with advisory votes. The commission members with voting power shall have equal voting rights.

A member of the commission shall neither advise nor decide, if one of the conditions given under C. 1a), clauses 1 – 4, is fulfilled.

In case of a conflict of interest, the KIT Senate shall appoint a substitute member.

The members of the commission shall not be bound by instructions from a higher level. The term of office of the appointed members shall be two years. Re-election shall be possible.

The commission shall investigate allegations of scientific misconduct. Responsibilities of the examination, doctoral, and post-doctoral lecture degree committees shall remain unaffected. In cases of scientific misconduct relating to scientific qualification theses (doctoral thesis, post-doctoral lecture qualification thesis) and in proceedings for the withdrawal of academic titles, the respective bodies of the KIT Departments (doctoral committee, post-doctoral lecture qualification committee) shall be responsible. In such proceedings, an ombudsperson may be requested to execute preliminary proceedings according to C. 2b). When these bodies meet to investigate the said cases, an ombudsperson with an advisory vote shall be consulted to safeguard good scientific practice.

The commission shall become active on request by one of the ombudspersons or its members. Provided that they are members or employees of KIT, also whistle-blowers may apply for an official investigation of scientific misconduct with the chairperson of the commission after closing of the preliminary proceedings. In cases of suspicions coming from outside of the KIT, the commission may be complemented by an external member.

In addition, the commission shall advise the KIT Senate as regards the further development of good scientific practice at KIT.

2. Procedure for Investigating Scientific Misconduct

a) General Procedural Rules

The procedure to be executed by the commission shall be subject to the *Verfahrensordnung des KIT* [6] (Procedural Rules of KIT), unless otherwise stipulated in the present rules.

In procedures to investigate allegations of scientific misconduct, the principle of confidentiality shall apply. Until proof of culpable misconduct, information about the parties involved in the procedure and findings obtained so far shall be treated strictly confidentially.

Persons suspecting scientific misconduct (so-called whistle-blowers) shall not suffer any disadvantages for their own scientific and professional career. The ombudspersons and the institutions investigating a suspicion shall ensure their protection in an appropriate way. The information shall be given in “good faith”.

The ombudspersons and commission shall investigate allegations of scientific misconduct at their due discretion.

In case of parallel court proceedings covering largely the same allegation, the ombudsperson and commission may suspend the procedure.

There shall not be any legal remedies against the decision of the ombudspersons and the commission.

The procedure, even if it was suspended by the ombudsperson or commission, can be resumed any time, if a new suspicion is made or new facts become known.

b) Preliminary Proceedings

In case of concrete grounds for suspicion of scientific misconduct, the responsible ombudsperson shall be informed. This information shall be made in writing. If applicable, proofs and evidence etc. shall be enclosed. In case of oral information, a note in writing shall be made about the suspicion and the grounds justifying it.

The ombudsperson shall check the allegation for plausibility, precision, significance, and potential motives and for possibilities of dispelling or invalidating it.

The person suspected shall be informed about the allegations raised and directly given the opportunity to comment without the person of the whistle-blower being disclosed. The suspected person shall be informed that he/she is free to comment on the suspicion and to seek legal representation. The deadline for commenting shall be two weeks.

Upon receipt of the comment or upon the expiry of the deadline, the ombudsperson shall decide whether further investigations are needed, the main proceedings are to be initiated according to C. 2c), or the proceedings are to be terminated. The person suspected and the whistle-blower shall be informed about the decision.

In case a suspicion turns out to be sufficiently concrete and if potential mediation attempts are not successful, the main proceedings shall be initiated by the ombudspersons informing the chairperson of the commission about the allegations and submitting a report about the results of the preliminary investigation. As for the rest, the ombudsperson shall be obliged to discretion.

In case suspicion has not been confirmed or investigation of the suspected misconduct was impossible and all attempts to settle the matter failed or if insignificance is found, the preliminary proceedings shall be terminated. If the preliminary proceedings are terminated, the person suspected and the whistle-blower shall be informed about the decision and the reasons. In case the whistle-blower does not agree with the termination of the preliminary proceedings, he/she shall have the right to request a review of the decision by the commission within a period of four weeks.

c) Main Proceedings

The commission shall examine the matter in closed oral hearings. It shall check by free consideration of evidence whether a case of scientific misconduct exists. The contents, execution, and results of the investigations shall be documented in writing and in a plausible manner.

The suspected person shall be given the opportunity to comment in an appropriate way. The person shall be informed that he/she is free to comment on the suspicion in writing or not to make any statement about the events and to seek legal representation anytime. On request, the person suspected shall be heard orally. The deadline for the comment shall be two weeks. If other persons are heard, also these shall have the right to be heard orally and to seek legal representation. If the person suspected requires knowledge of the person of the whistle-blower for legal defense, it shall be informed about the name.

If necessary, external experts/reviewers may be asked to attend the meetings of the investigation commission.

If the commission has not found any evidence of misconduct, the proceedings shall be terminated. In case the commission considers misconduct to be proven, it shall submit the results of its investigation and the reasons leading to this result as well as a proposal relating to the further proceedings also with respect to the protection of rights of others to the President of KIT for a final decision.

The person suspected and the whistle-blower shall be informed immediately in writing about major reasons leading to the termination of the proceedings or further submission to the President. The right of the persons suspected to inspect the files shall be subject to Art. 29, *Landesverwaltungsverfahrensgesetz* (State Administrative Procedures Act). The files of the official investigation shall be kept for a period of 30 years. The persons mentioned in connection with the suspected scientific misconduct shall have the right to claim discharge for the duration of the keeping of the files, provided that the suspicion of scientific misconduct has not been confirmed.

3. Further Proceeding

In case scientific misconduct was found, the Presidential Committee shall decide about the necessity of further measures or initiate such measures for the protection of the scientific standards of KIT and the rights of all persons affected directly or indirectly.

Punishment of scientific misconduct shall depend on the circumstances of the individual case and on degree of severity of the proved misconduct. Depending on the circumstances, investigation measures and/or disciplinary measures and/or measures according to labor law, civil law, criminal law, and/or regulatory measures shall be initiated together with the corresponding legal proceedings. After hearing the respective division/divisions of KIT and the respective KIT department/departments, the Presidential Committee shall decide whether and to what an extent other scientists, scientific institutions, scientific journals and publishers, funding institutions and science organizations, professional organizations, ministries, and the public shall be informed.

D. Entry into Force, Transition Provisions

1. The rules for safeguarding good scientific practice at Karlsruhe Institute of Technology (KIT) shall be published in the official announcements of Karlsruhe Institute of Technology (KIT).

2. The rules for safeguarding good scientific practice at Karlsruhe Institute of Technology (KIT) shall enter into force on the day after their publication in the official announcements of Karlsruhe Institute of Technology (KIT).

3. Until reappointment of the commission members according to C. 1b), the commission shall continue its work in its previous composition.

Karlsruhe, November 25, 2014

Signed

Professor Dr.-Ing. Holger Hanselka

(President)

References

[1] *Safeguarding Good Scientific Practice*, Deutsche Forschungsgemeinschaft, amended and updated white paper 2013
(http://www.dfg.de/en/research_funding/principles_dfg_funding/good_scientific_practice/index.html)

[2] Empfehlung der 14. Mitgliederversammlung der HRK am 14. Mai 2013 in Nürnberg: *Gute wissenschaftliche Praxis an deutschen Hochschulen*
(http://www.hrk.de/uploads/tx_szconvention/Empfehlung_GutewissenschaftlichePraxis_14052013_02.pdf)

[3] Gemeinsames Positionspapier des Allgemeinen Fakultätentages (AFT), der Fakultätentage und des Deutschen Hochschulverbandes (DHV): *Gute wissenschaftliche Praxis für das Verfassen wissenschaftlicher Qualifikationsarbeiten*, Juli 2012
(http://www.hochschulverband.de/cms1/uploads/media/Gute_wiss._Praxis_Fakultaetentage_01.pdf)

[4] *Anforderungen an die Qualitätssicherung der Promotion* – Positionspapier des Wissenschaftsrates (2011)
(http://www.wissenschaftsrat.de/download/archiv/1704-11.pdf)

[5] *Richtlinie zum Umgang mit Geistigem Eigentum am KIT*
(https://intranet.kit.edu/downloads/formulare/RE_KIT_IPR_Policy.pdf)

[6] *Verfahrensordnung des Karlsruher Instituts für Technologie (KIT)*
(http:// http://www.sle.kit.edu/amtlicheBekanntmachungen_6356.php)