



RULES OF GOOD SCIENTIFIC PRACTICE AND ACADEMIC MISCONDUCT PROCEDURE

of the
Helmholtz-Zentrum Berlin für Materialien und Energie GmbH

As amended on 26 July 2011, with amendments of 25 January 2017
Implemented by the HZB management on 13 September 2011

Rules of Good Scientific Practice and
Academic Misconduct Procedure
of the Helmholtz-Zentrum Berlin für Materialien und Energie GmbH

As amended on 26 July 2011, with amendments of 25 January 2017,
based on the rules of the former Hahn-Meitner-Institut of 14 June 2002 with additions of 15 May 2007,
the rules of the former BESSY mbH, and the recommendations by DFG (German research founda-
tion).

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Preamble

In 1998 the Deutsche Forschungsgemeinschaft (German Research Foundation) compiled recommendations to ensure good scientific practice, which has been updated and amended in 2013¹. These were taken as the basis for regulations by the Helmholtz-Association to ensure good scientific practice and for scientific misconduct procedures which were recommended for implementation by the individual Helmholtz facilities. For the Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (HZB) the following rules and procedures have been defined by the management in consultation with the WTR (internal Science and Technology Board).

All scientific staff members of HZB must adopt these rules of good scientific practice as the basis of their scientific activities. These rules also apply when HZB employees work in external committees and other research institutions. They cover all scientific work in which HZB is involved through its employees.

1. Rules of good scientific practice

(1) Good scientific practice means working *lege artis*, i.e. according to the accepted rules of the specific discipline in the light of the current state of knowledge. In particular, this requires the thorough knowledge and evaluation of the relevant literature and the use of appropriate methods.

(2) Careful quality control is an essential feature of good scientific practice. Quality assurance includes the systematic and critical analysis of findings obtained and their control, for example by cross-referencing within a workgroup. Quality assurance therefore depends on healthy communication within any specific workgroup.

(3) Good scientific practice demands openness and honesty to the contributions of colleagues, employees, competitors and predecessors.

(4) Good scientific practice includes the documentation of all steps, securing all electronic records and data, ensuring reproducibility before publication, and allowing authorized third parties access to the records.

(5) An essential aspect of good scientific practice is the responsibility for authorship. The authors of a scientific publication are always jointly responsible for the content, if individual contributions are not explicitly mentioned. Each author is accountable, identifies her- or himself with the scientific results and will accept responsibility for the content of the publication.

(6) Good scientific practice includes the education and promotion of scientific talent.

¹ Memorandum "Safeguarding Good Scientific Practice": <http://doi.org/10.1002/9783527679188.oth1>

2. Measures to avoid academic misconduct

(1) Organisational structures

a) The heads of the scientific organization units are responsible for the management, supervision, conflict management and quality assurance of the scientific work of HZB. They make sure that

- the objectives of the research and duties of the individual scientist are specified,
- each employee's responsibilities are clearly assigned and
- regular checks for compliance with goals are conducted.

b) For projects the project leader is responsible according to a).

c) Employees who cooperate in multi-centre projects are subject to the rules of good scientific practice, even if the project manager is not employed by HZB.

(2) Verifiability of scientific results

a) Primary data, methods, procedures and results, which form the basis of a scientific publication² must be clearly documented (e.g. using page-numbered laboratory notebooks) and kept available for at least ten years.

b) Details of the organizational and technical processes for the storage and for any additional documentation required are defined in the current „Guidelines for scientific and technical publications of HZB“ by the „Accompanying Form for Publications of HZB“.

c) Mandatory documentation requirements, e.g. due to legal or technical licensing requirements, which deviate from this rule, remain unaffected. If personal information is stored the provisions of the Data Protection Act are to be adhered to.

(3) Education

Young scientists have the right to adequate supervision³ and education. This includes:

- teaching of good scientific practice,
- technical and professional support on scientific work and
- provision of appropriate resources in the working environment

In addition to the appointed supervisors, young scientists can always contact the responsible heads of their organizational units, their project manager or team leader, and senior scientists in their working environment. In conflict cases, the ombudspersons are available as persons of trust.

² Scientific publications are publications, conference papers and reports on scientific cooperation, exams and contract work.

³ With effect from 1 January 2011 a PhD committee consisting of two supervisors, the student and an external person supervises the progress of PhD theses in the course of regular meetings.

(4) Evaluation criteria

In formulating evaluation criteria, quality and originality should always be more important than quantity. In particular, purely quantitative measures are only of secondary importance for assessing the academic performance in the course of promotions, hiring, and budgetary allocations.

(5) Authorship

a) The list of authors of a scientific publication must include all those - and only those - who have contributed significantly to the design of the studies or experiments, the compilation, analysis and interpretation of data and the formulation of the manuscript and agreed to its publication, i.e. those who assume responsibility for the publication. In the event that not all authors can warrant all the content, individual contributions should be identified.

b) The provision of important materials, training of co-authors in certain methods, data collection, financing of investigations, management of the department or work group in which the research was conducted or the reading of the manuscript are not in themselves regarded sufficient to justify authorship.

c) To avoid conflicts over authorship, clear agreements should be reached among participants at an early stage.

d) Honorary authorship is excluded. The appropriate forms of reference such as footnotes or credits are recommended.

e) It conflicts with the rules of good scientific practice to prevent publication as a co-author on whose agreement publication depends, where there are no urgent grounds to do so. Refusals to publish must be justified with verifiable criticism of data, methods or results. Should co-authors suspect an obstructive refusal to give agreement, they can ask ombudspersons. If the ombudsperson is persuaded that there is deliberate obstruction, he or she can issue a statement permitting („*Ombudsspruch*⁴“) the other researchers to publish. The matter must be disclosed in the publication, including the permission to publish by the ombudsperson.

(6) Original publications⁵

a) In delimitation to publications in terms of the “HZB Guidelines for scientific and technical publications³” original publications are defined as communications of new observations, theories or experimental results, including conclusions which are published in scientific journals.

b) Repeated publication of the same results in terms original publications are acceptable only in justified exceptional cases such as restricted articles with limited number of pages (letters, short or rapid communications) or in written conference contributions or other reports of restricted access.

⁴ Memorandum "Safeguarding Good Scientific Practice": as amended 2013, pp 83-84

⁵ See the current “Richtlinien für wissenschaftlich-technische Veröffentlichungen des HZB” (Guidelines for scientific and technical publications of HZB) with “Begleitblatt für Publikationen des HZB” (Accompanying Form for Publications of HZB).

- c) The fragmentation of research with the goal of separate publications should be avoided.
- d) Findings and ideas of other scientists and relevant publications of other authors must be cited appropriately.

(7) Person of trust (ombudsperson)

In consultation with the WTR the HZB management appoint one or more experienced scientists as ombudspersons for a period of two years, who are available to advise and support all scientists confidentially on questions of good scientific practice and its impairment through academic misconduct.

3. Academic misconduct

(1) Academic misconduct occurs when false statements are made intentionally or through gross negligence in a scientifically relevant context, intellectual property rights of others are infringed or their research activities are hampered.

Scientific misconduct occurs particularly through

a) False statements

- Invention and manipulation of data
- Elimination of primary data,
- Manipulation of figures,
- False information in applications, grant applications, publications, etc.

b) Infringement of intellectual property rights of others by

- unauthorized use by presumption of authorship (plagiarism),
- the presumption or unsubstantiated acceptance of scientific authorship, acceptance of an honorary authorship,
- exploitation of other person's, unpublished, scientific ideas or research approaches (theft of ideas), especially as referee
- publication or making available any information without the consent of the owner
- naming another person as author without their consent.

c) Impairment of the research work of others by

- intentional damage, destruction or manipulation of scientific experimental set-ups, data or software,
- the deliberately false or misleading evaluation of research activities,
- the provision of courtesy expertise,
- the deliberate or grossly negligent damage to the scientific reputation.

(2) Joint responsibility for scientific misconduct may result from, e.g.

- active participation in the misconduct of others,
- knowledge of manipulations by others,
- co-authorship of manipulated publications, or
- gross neglect of supervisory duties.

4. Academic misconduct procedure

(1) It is part of scientific ethics not to tolerate another person's scientific misconduct. The usual procedure in cases of suspected misconduct should be to address the possible misconduct with the authors and to seek clarification and – where appropriate – correction. For many reasons this may be difficult. Therefore, a procedure is defined below for cases in which a suspicion or allegation of academic misconduct can not be resolved in direct talks.

(2) When dealing with allegations of academic misconduct all the steps have to be performed without delay and with the utmost confidentiality, to protect the parties involved.

a) In case of suspected academic misconduct an ombudsperson has to be informed. This may be one of the HZB ombudspersons. Alternatively, ombudspersons of involved scientific institutions or the "Research Ombudspersons" of the DFG may be approached.

b) The ombudsperson shall take appropriate steps to clarify the facts. In this he or she must be given support by the heads of organizational units or group leaders.

c) If the suspicion proves to be justified or the ombudsperson can not clarify the facts or achieve an agreement among the parties involved, the management decides on the basis of a written report by the ombudsperson about further procedures. The report is handed out to all parties involved.

d) If further investigations are necessary, the management sets up an inquiry commission. It must be chaired by an independent person of integrity. This person should not belong to the Helmholtz Association. The commission may appoint the ombudspersons as advisor.

(e) A conflict of interest of a committee member may be declared by her or himself, by the person concerned or by other parties involved at any time. In case of a conflict of interest the member is excluded. The decision is made by the committee.

(f) The committee meets in closed oral hearings. The person concerned can access all documents and request information at any time. The person concerned must be given the opportunity to comment at any stage of the process. He may call in a person of his confidence as counsel. The hearing of other persons is permitted.

g) The commission shall submit a final written report to the management. The management will then draw the necessary conclusions.

h) If a managing director is involved in the suspicion of misconduct, the head of the Scientific Advisory Board is to be informed instead of the Board, who in turn may involve the Chair and Deputy Chair of the Supervisory Board.

5. Consequences of academic misconduct

(1) If academic misconduct is established, the management or the Chair of the Supervisory Board have to decide about further measures after due deliberation.

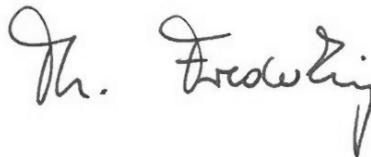
(2) Depending on the circumstances of each case and in particular on the severity of the misconduct various sanctions are possible, where appropriate also cumulative, e.g.

- Withdrawal of scientific publications
- Information of the public / cooperation partners
- Employment consequences such as a warning, dismissal or termination of contract
- Legal consequences such as a ban from the premises, claims for compensation or refunds (grants, external funding)
- Criminal prosecution

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