

RULES FOR SAFEGUARDING GOOD SCIENTIFIC PRACTICE AT THE MAX DELBRÜCK CENTER FOR MOLECULAR MEDICINE (MDC)*

Rules 1 and 2

General

Work at MDC is carried out according to the rules of good scientific practice, that is, according to accepted international standards. These rules shall apply in the following cases:

- experimental and clinical research
- publications and authorships
- training of junior scientists and conferral of degrees (graduation)
- applications, grant applications, career consultations, appointments, expert opinions and evaluations
- conflicts of interest

When beginning employment at MDC, each scientifically active employee shall make a strict commitment to work according to these rules, to enforce them in his or her area of responsibility and to encourage junior scientists to comply with these rules. This commitment is made upon signing the employment contract.

The following shall apply accordingly:

- the "Recommendations of the Commission on Professional Self-Regulation in Science" of the German Research Foundation of January 1998
- "Safeguarding Good Scientific Practice and Procedures in Case of Scientific Misconduct" of the Helmholtz Association of September 9, 1998
- "Rules for Safeguarding Good Scientific Practice" of the Max Planck Society of March 20, 2009 and
- "Good Scientific Practice in Research and Scholarship" of the European Science Foundation of December 2000

As a matter of principle, all scientific fields represented at the MDC shall work *lege artis*.

This means:

Careful attention to discipline-specific rules relevant to data collection and selection, reliable securing and storing of primary data as well as clear and comprehensible documentation of all important results.

This includes:

- Own research results or results of one's own group shall be rigorously questioned.
- Absolute honesty shall be maintained regarding the contributions of others (employees, partners, predecessors, colleagues, competitors).

* Adopted by the Scientific Council of the MDC on May 29, 2002; Rule 11 newly defined by the decision of the Board of Trustees in its meeting on November 11, 2004, updated 01/2011. These rules can be accessed on the MDC website at: <http://www.mdc-berlin.info/en/vorstand/index.html>

- Ethical standards shall be scrupulously observed (e.g. in experiments on humans or with human material, or in case of animal tests).¹
- In interdisciplinary projects, especially at the interface of science and medicine, new standards for good scientific practice shall be systematically established.
- The findings that have been established with public funds shall be published.
- All findings shall be examined for patentability prior to their publication.
- Confidentiality and the disclosure of conflicts of interests shall be guaranteed for expert opinions.
- The declaration of financial interests shall be carried out according to internationally accepted standards (as of August, 2001).

Rule 3

The MDC Board of Directors has organized the institution in such a way that the tasks of management, supervision, conflict mediation and quality assurance are defined unambiguously.

The cooperative work culture of the MDC is in contrast to a strictly hierarchically organized academic supervision in the sense of a public authority; however, this also implies a particular responsibility of each scientist to ensure quality and honesty in the research achievements.

First and foremost, each scientist is responsible for his or her own conduct. The scientist shall be supported in this by his or her colleagues, and especially by the head of the research group as well as by the coordinators of the research fields.

In addition, the ombudsman for issues of good scientific practice, the liaison for doctoral students as well as the contact person for the prevention of corruption are important contacts in cases of unanswered questions and conflicts. These persons are independent and are available to all employees of the MDC – if need be, also under protection of the anonymity of the employee(s).

Furthermore, the MDC Board of Directors supports all employees in questions of scientific ethics.

Rule 4

At the MDC, special emphasis is placed on the advancement of the young generation of scientists. This is carried out in close collaboration with the Berlin universities.

For students writing their theses, doctoral students and younger post-docs, an appropriate supervision by a specifically named contact person shall be ensured. The contact person is usually the head of the research group and is also responsible for giving instructions on compliance with good scientific practice. In addition, doctoral students shall be supervised in 'Graduate Programs' and 'Thesis Committees'.

¹ Ethics Commission of the MDC: http://www.mdc-berlin.info/de/vorstand/committees/ethics_committee/index.html
 Recommendations of the German Research Foundation on the topic of "Human Embryonic Stem Cells":
http://www.dfg.de/download/pdf/dfg_im_profil/reden_stellungnahmen/download/empfehlung_de_030501.pdf

The graduated students shall elect a liaison from the ranks of the heads of research groups of the MDC. This liaison shall be confirmed by the MDC Board of Directors. Among the responsibilities of the liaison are establishing and maintaining connections between the graduates and the universities in Berlin and/or Brandenburg.

Rule 5

In consultation with the Scientific Council, the MDC Board of Directors shall elect as ombudsman an independent liaison from the ranks of the heads of research groups. The employees can contact the ombudsman in cases of conflict, especially in cases of suspected scientific misconduct. The ombudsman shall not be the same person as the liaison for graduates.

In addition, the Board shall elect a contact person for the prevention of corruption who gives advice on legal issues concerning third-party funds and cooperation with industry.

Rule 6

Excellent research is based first and foremost on originality and on quality. As a matter of principle, these standards take precedence over quantity at the MDC

- when allocating performance-related research funds
- when hiring and making appointments
- when making scientific publications
- in examinations and in awarding academic degrees
- when awarding scholarships
- when generating expert opinions and evaluations

Whenever possible, scientists at the MDC are expected to publish in the best international journals. However, the mere summation of so-called impact points is no performance criterion.

Rule 7

Primary data must be saved for ten years. Specifically, the means of storage is dependent on the special requirements of the respective research area; for instance, CD-ROMs or similar storage media can be used for storing data. In any case, one must ensure that data manipulation is technically impossible to the greatest possible extent.

In the research groups, laboratory manuals with consecutive numbering should be kept as long as this is reasonable and possible in the respective field. A comparable documentation using the respective usual methods must be ensured in the other fields.

All research results and materials created at the MDC, as well as the documentation generated for this purpose are property of the MDC.

Rule 8

Authors of scientific publications from the MDC always share responsibility for the respective content.

The presumption or unwarranted assumption of scientific authorship or co-authorship ("honorary authorship") is not permitted.

Rule 9

A Catalog of Behavior to Be Regarded as Scientific Misconduct is attached to these rules.

In case of suspicion of scientific misconduct, the Code of Procedure in Case of Suspected Scientific Misconduct¹ applies at the MDC, including its appendix:

- Catalog of Possible Sanctions and/or Consequences in Cases of Scientific Misconduct

¹ The CODE OF PROCEDURE IN CASE OF SUSPECTED SCIENTIFIC MISCONDUCT and the CATALOG OF POSSIBLE SANCTIONS and/or CONSEQUENCES IN CASES OF SCIENTIFIC MISCONDUCT is retrievable in the Intranet under [Board / Rules and Principles](#)

Appendix 1

CATALOG OF BEHAVIOR TO BE REGARDED AS SCIENTIFIC MISCONDUCT

Scientific misconduct occurs if false statements are made deliberately or with gross negligence in a scientifically relevant context, if the intellectual property of others is infringed on or if their research activities are otherwise impaired.

In particular, the following are regarded to be misconduct, although of course the respective circumstances of the individual case must be considered:

- ♦ **False statements**, i.e., among others:
 - fabricating data
 - falsifying data, e.g.
 - by excluding and rejecting undesired findings, without disclosing this fact
 - by manipulating an image or a representation
 - incorrect statements in an application letter or a grant application (including false statements regarding the publication organ and on publications currently in print)
 - the raising or propagation of unjustified accusations of alleged misconduct of others

- ♦ **Intellectual property infringement**, i.e., among others:
 - of the work created by another person which is protected by intellectual property rights or of significant scientific findings, hypotheses, teachings or research approaches of others through
 - unauthorized use with the pretention of authorship (plagiarism)
 - exploitation of external research approaches and ideas, especially as expert consultant (theft of ideas)
 - pretention or unwarranted assumption of scientific authorship or co-authorship
 - falsification of content
 - unauthorized publication and unauthorized provision of access to third parties, as long as the work, insight, hypothesis, theory or research approach has not yet been published
 - the claim of (co-)authorship without the other individual's consent
 - the claim of so-called honorary authorship

- ♦ **Interference with the research activities of other individuals**, i.e., among others:
 - sabotaging research activities (including vandalizing, destroying or manipulating experimental designs, devices, documents, hardware, software, chemicals or other items required by another individual for carrying out an experiment)).

♦ **Joint responsibility**

Joint responsibility can arise from the following, among others:

- active participation in the misconduct of others
- complicity in falsifications of others
- co-authorship of publications containing falsifications
- gross negligence of supervisory responsibility

♦ **Acceptance of financial benefits from third parties**

This document is an English translation of the original German text *Regeln zur Sicherung guter wissenschaftlicher Praxis am Max-Delbrück-Centrum für molekulare Medizin (MDC)*. In case of discrepancy between the English and German versions, the German version shall prevail.