

Good Scientific Practice*

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*drawing heavily on the MPG and DFG guidelines (see last page)

Some general principles

- Science is founded on integrity and honest
- Be skeptical, especially about your own claims and result
- Extraordinary claims require extraordinary evidence
- Properly document your work
- Give *constructive* criticism, and receive it openly
- Recognize contributions (e.g. citation); be fair in evaluation (e.g. refereeing)

Publications



- Content must be original and previously unpublished
 - ▶ include previous results (yours or from others) only insofar as they help understanding, and identify clearly the source
- Mention any findings that call into question your results
- Give credit for previous own and third-party work

Authorship issues

- Authorship permitted and required for significant contribution to
 - ▶ experiment design
 - ▶ analyzing or interpreting data
 - ▶ writing the manuscript
- Insufficient grounds for authorship
 - ▶ management of group (as opposed to the work)
 - ▶ management of funding
 - ▶ technical work on data collection
 - ▶ reading the manuscript (without providing substantial contributions to content)
- “honorary” authorship always forbidden

Authorship issues (contd.)

- Authors are jointly responsible for the publication
 - ▶ all must agree to publication, but unreasonable disagreement is unethical
- Cut-off for authorship can be complex and customs differ
- No general rules or easy solutions to authorship order
- Good practice: early agreement on principles of inclusion and order

Some types of misconduct

- plagiarism: presenting someone else's work as your own
- using (or making available) unpublished ideas or results from others without their permission
- taking ideas from a proposal/paper you are reviewing
- knowingly making false statements
- inhibiting other people's work

You may also be held partially responsible if you

- know of misconduct, but do not act
- are co-author on a paper that breaks these rules

Some things you may not be aware of

- You are required to ensure
 - ▶ reliable and accessible storage of all primary data for at least 10 years
 - ▶ access must be provided following any reasonable request (publicly funded)
 - ▶ this must be accompanied by clear and comprehensive documentation (journal article may not suffice)
- Selective publication of data, results, analyses is a form of misconduct



What to do if you experience or observe problems

- Talk to me as MPIA ombudsperson (full confidence; no reporting duty)
- Talk to our MPG Section (CPT) ombudsperson
- If a personal conflict is involved you can also talk to the conflict coaches, equal-opportunity officers, and others. Details on our [internal website](#)
- Protection of your interests is paramount!

If you want to know more



M A X - P L A N C K - G E S E L L S C H A F T



Rules of Good Scientific Practice

*- adopted by the senate of the Max Planck Society
on November 24, 2000, amended on March 20, 2009 -*

Scientific honesty and the observance of the principles of good scientific practice are essential in all scientific work which seeks to expand our knowledge and which is intended to earn respect from the public. The principles of good scientific practice can be violated in many ways – from a lack of care in the application of scientific methods or in documenting data, to serious scientific misconduct through deliberate falsification or deceit. All such violations are irreconcilable with the essence of science itself as a methodical, systematic process of research aimed at gaining knowledge based on verifiable results. Moreover they destroy public trust in the reliability of scientific results and they destroy the trust of scientists among themselves, which is an important requirement for scientific work today where cooperation and division of labor are the norm.

Although dishonesty in science cannot be fully prevented through sets of rules alone, appropriate precautions can nevertheless guarantee that all those involved in scientific activity are regularly made aware of the standards of good scientific practice. This is an important contribution to limiting scientific misconduct.

The basic rules of good scientific practice set out here take up the relevant recommendations of the Deutsche Forschungsgemeinschaft of January 1998 and adapt them to the research conditions at the Max Planck Society. They are binding on all persons active in research work at the Max Planck Society. For further information on the background and issues involved, please refer to the paper on "Verantwortliches Handeln in der Wissenschaft" (responsible practice in science) prepared by a working group of the Scientific Council of the Max Planck Society, and approved by the Senate of the Max Planck Society at its meeting of November 24, 2000. This text gives a detailed analysis of the conditions for and specific dangers to good, responsible scientific practice. It is also a plea for cooperation in the further development of the relevant recommendations.

Sicherung guter wissenschaftlicher Praxis Safeguarding Good Scientific Practice

Denkschrift
Memorandum

WILEY-VCH

DFG