Practical advice regarding good scientific practice

– Committee on Good Scientific Practice (the Practice Committee)

Good scientific practice

Science consists of endeavours to generate knowledge and insight. Such endeavours should be based on standards for good scientific practice.

Good scientific practice includes:

- Researchers presenting their findings to their peers for public debate.
- Research being meticulous and complying with the documentation requirements for the subject concerned.
- Providing open, true and fair information about the persons contributing to the research.
- During the research process, making the necessary considerations for any human subjects, laboratory animals or other affected parties, in accordance with national and international rules and principles.
- Openness about financial and other interests that might affect the credibility of the study.

Any breach of good scientific practice casts doubt on the legitimacy of the results. This can have detrimental effects that extend far beyond the world of science.

16 pieces of good advice

1) Study relevant literature before starting your research.
2) Plan to involve relevant expertise, e.g. of statistics, in experiments.
3) Be meticulous when conducting experiments and surveys and assuring the quality of the results.
4) Store the data in a manner that makes it easy to access again after publication.
5) When conducting joint research, agree on the allocation of responsibilities.
6) In collaborative projects, regularly take the time to make sure that the expectations of the various partners are in tune with each other, particularly regarding publication.
7) Pay attention to special requirements for experiments involving humans.
8) Pay attention to special requirements for recording sensitive personal data.
9) Pay attention to special requirements for experiments involving animals.
10) Be meticulous with source references and avoid any form of plagiarism.
11) Comply with the Uniform Requirements of the Vancouver Protocol for publishing.
12) Be open about how the research was funded and provide information about any potential conflicts of interest.
13) Remember to thank those who have contributed financially or practically, but ask them first.
14) Remember to obtain co-author statements for joint publications.
15) Remember to involve partners in the wider dissemination of the research results.
16) Make sure you comply with funding conditions imposed by foundations, etc.

The committees on Good Scientific Practice and Scientific Dishonesty

The Practice Committee at the University of Copenhagen

Set up by the Rector, the Committee on Good Scientific Practice (the Practice Committee) is an internal committee composed of representatives from all of the faculties. The committee deals with questions of good scientific practice, in accordance with rules set by the University.

The Practice Committee considers cases of suspected breach of good practice. Whenever it finds that a case is serious enough to constitute actual misconduct, it refers the case to the Danish Committees on Scientific Dishonesty. The Committee considers cases submitted as written complaints, cases submitted by members of staff seeking to clear their names in the wake of rumours of misconduct, cases referred by the Rector and cases the Committee itself deems of "special significance".

The Practice Committee also hosts conferences on various topics related to good practice.

The Danish Committees on Scientific Dishonesty

The DCSD were set up by the Minister of Science, Technology and Innovation. They process cases of misconduct in research (i.e. falsification, fabrication or plagiarism), whether committed intentionally or by dint of gross negligence. A case is brought by submitting a complaint or by a researcher requesting a hearing in order to be cleared of an allegation of scientific misconduct.

References

Websites

- The Practice Committee at the University of Copenhagen, http://praksisudvalget.ku.dk/
- The Danish Committees on Scientific Dishonesty (DCSD), http://www.fi.dk/
- Office of Research Integrity, US Department of Health and Human Services, http://www.ori.hhs.gov/

Rules and guidelines

- "University of Copenhagen's Rules on good scientific practice", http://praksisudvalget.ku.dk/
- "The University of Copenhagen's guidelines for good scientific practice", http://praksisudvalget.ku.dk/
- Ministerial order regarding Danish Committees on Scientific Dishonesty, https://www.fi.dk
- Danish Committees on Scientific Dishonesty: "Guidelines for Good Scientific Practice with particular focus on the health-, natural- and technical sciences", http://www.fi.dk/
- International Committee of Medical Journal Editors: "The Uniform Requirements of the Vancouver Protocol", http://www.icmje.org/index.html (Recommendations for biomedical publications)
- The Singapore Statement on Research Integrity, http://www.singaporestatement.org/ (a product of the second world conference on "research integrity" – this is not an official and legally binding document, but provides a common frame of reference for what constitutes good scientific practice for researchers throughout the world).