

Freie Universität Berlin, Fachbereich Veterinärmedizin
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An alle geschäftsführenden DirektorInnen bzw.
LeiterInnen aller wissenschaftlichen Einrichtun-
gen am Fachbereich Veterinärmedizin

- hier -

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Safeguarding good scientific practice in the Department of Veterinary Medicine

Dear colleagues,

as the representatives for the 'Sicherung guter wissenschaftlicher Praxis /Safeguarding good scientific practice' in the Department of Veterinary Medicine, my colleague Mr. Aschenbach and I would like to point out the main regulations and innovations concerning the safeguarding of good scientific practice. The relevant guidelines have been published by the Deutsche Forschungsgemeinschaft (DFG). We would like to refer explicitly to the document '**Ergänzungen und Aktualisierungen/Supplements and updates**' of the document '**Vorschläge zur Sicherung guter wissenschaftlicher Praxis/Proposals for Safeguarding Good Scientific Practice**', which was released by the DFG in September 2013.

(http://www.dfg.de/download/pdf/dfg_im_profil/reden_stellungnahmen/download/empfehlung_wiss_praxis_1310.pdf).

The guidelines are mandatory for all universities and institutions that receive third-party funding for research from DFG. Since numerous institutions of our department receive DFG funding, these regulations are mandatory to all of us, including the institutions not supported by the DFG. Independent of DFG support, the strict implementation of these rules and standards in all scientific institutions goes without saying.

The Dahlem Research School (DRS) offers a course of several hours once per term focusing on the subject 'Sicherung guter wissenschaftlicher Praxis/Safeguarding good scientific practice'. Attendance of this course is free to all postgraduate/doctoral students and qualifies as a confirmation of the instruction on the rules of good scientific practice.

The basic thoughts and recommendations on this subject are summarized in the following. You can also find more information such as links to subjects relating to ethical questions of digital-image processing, co-authorship, and management of laboratory notebooks on the department's homepage (in German) at:

http://www.vetmed.fu-berlin.de/forschung/sicherung_guter_wiss_praxis/index.html

- Early warning and prevention: The temptation of committing scientific misbehaviour is often aggravated by external conditions, which can be easily determined. Among these especially is a high pressure to perform, combined with simultaneous tight and time-limited contract obligations, narrow deadlines (e.g. for dissertations), high pressure to perform caused by competition for the same position, possibilities of promotion, unusually high workloads, but also any activity that does not offer an inherent third-party verification. Additionally, very ambitious personalities seem to be particularly prone to scientific misbehaviour, especially, when further factors (in particular time pressure, restricted contracts, etc.) are added. These factors are often easily recognizable for working groups and institute leaders and should lead to the sensitive handling of the issue in the specific group of people. A regular, open discussion of the ethical and moral principles of scientific work belongs to this context, as does all information on the consequences of misbehaviour.

- Providing early and complete information to all participants: All members of the scientific staff should be informed of the rules of good scientific practice before commencement of employment and thereafter on a yearly basis. These procedures should be confirmed in writing (notification, compliance with the rules, and signature). Every institute should keep corresponding records of the first instruction before commencement of employment, and regular, repeated information should be deposited in a suitable place (e.g. with the head of the institute). A short summary of the rules of good scientific practice of the DFG should be distributed to all scientists (see below).

- Dealing with suspected cases: It has been repeatedly recommended to announce suspected cases *immediately* to the relevant authorities *outside* the institution to ensure an unbiased, neutral assessment and consultation while maintaining absolute confidentiality. The clarification and consequences of scientific misbehaviour have previously often been complicated, because direct supervisors and colleagues have usually wished to cover up the misbehaviour. We also identify one of our functions as assisting you in specific questions or suspected cases, to maintain the interest of all participants.

- Respect and protection of whistle-blowers: In the past, cases of scientific misbehaviour have obviously not been regularly announced and have thus been exacerbated, because those who detected the scientific misbehaviour (initially) did not want to get

into trouble themselves by passing along the information. A regular worsening of the procedure (cognisance!) has then consequently been observed in several cases. The individual institution should guarantee that those reporting their observations or suspicions of scientific misbehaviour (so-called whistle-blowers) to the corresponding authorities should not be afraid of any negative consequence to themselves. A preferably anonymous protection of these people is one of the main elements of the whole process. Relevant announcements and measures outside the affected institution have proven valuable and should not, or not exclusively, be reported to the direct leaders of the working group. The moral protection of whistle-blowers can especially be accomplished through an open discussion of the morals of good scientific practice.

In practice we recommend the following activities for your institution:

1. All new colleagues/scientists should be provided with information about the rules of good scientific practice (see appendix), with delivery of the information in written form, followed by written confirmation.
2. Regular, at least yearly, reminders to all scientific and technical colleagues generating scientific data to obey the rules of good scientific practice and of the consequences of misbehaviour, followed by written confirmation (e.g. also by using the provided courses and lectures of the DRS).
3. Identification and perceptive instruction of particularly threatened people.
4. Appointment of an authorised representative in each institution for the regular dissemination of information on, and the surveillance of, observing the rules of good scientific practice. Assigning this task to an older colleague has been proven to be of value, especially for briefing new postgraduates/doctoral students and scientific colleagues. The instructions must be repeated on a yearly basis and must be acknowledged by all those instructed.

The appointed person should confirm in writing the assumption of the duty and should familiarise her- or himself in detail with all recommendations of the DFG concerning the rules of good scientific practice and with the code of honour of the Freie Universität Berlin (see below). The representative should announce the rules within the institution, supervise their adherence, and especially organize the storage of all original data and documents for at least 10 years within the lab where they have been generated. Additionally, every original data record must be copied, and the copy must be stored separately on a yearly basis according to the requirements of the DFG. The rationale behind the latter obligation is that original data have 'suddenly' disappeared repeatedly in the past.

5. Announcement of all relevant information and contact positions in your institution:

Person of trust for the maintenance of good scientific practice in the Department of Veterinary Medicine:

Prof. Dr. Georg von Samson-Himmelstjerna; deputy: Prof. Dr. Jörg Aschenbach
Ombudspersons at the Freie Universität Berlin

The legal department at the Freie Universität Berlin (Rechtsamt)

DFG recommendations on professional self-regulation in science:

(http://www.dfg.de/download/pdf/dfg_im_profil/reden_stellungnahmen/download/empfehlung_wiss_praxis_1310.pdf).

Code of honour and statutes for the safeguarding of good scientific practice at the Freie Universität Berlin:

<http://www.fu-berlin.de/forschung/service/Ehrenkodex-ab292002.pdf>

6. Accurate appreciation of scientific contribution:

An essential part of good scientific practice is also a fair nomination of people who have contributed significantly to a given project and thus are jointly responsible in the sense of co-authorship. The *International Committee of Medical Journal Editors* (ICMJE, also known as the “Vancouver group”) published the corresponding guidelines for authorship in scientific papers:

The nomination as author should exclusively be based on the following criteria:

1. Substantial contribution to the conceptual design and plan of the project or to the acquisition/generation, analysis, or interpretation of data,
2. Conceptual preparation, outline, and/or writing of the publication or the revisions to improve its intellectual content, and
3. Final approval for publication.

Each author must fulfil these three conditions. The acquisition of financial support, the collection of data (e.g. the reading of collected data and their input into a database), or the supervision (mentoring) of a research group alone do not justify authorship. Each author should participate in the project to a sufficient level to accept public responsibility for the corresponding parts of the project.

The source and further information on co-authorship can be found at <http://www.ICMJE.org/icmje-recommendations.pdf>

A short summary of the essential measures for safeguarding good scientific practice and professional self-regulation in science, as expected by the DFG, is attached to this letter.

This short summary should be distributed directly to your colleagues. The relevant information and links will also be provided on the research website of the department.

Please contact us if you have any questions or suggestions concerning the subject 'Safeguarding good scientific practice'.

Thank you for your attention and best regards,



Prof. Dr. Georg von Samson-Himmelstjerna

Representative of trust of the department
according to the statutes/bylaws of the DFG for the
safeguarding of good scientific practice



Prof. Dr. Jörg Aschenbach

Deputy

Attachment: Compact regulations with list of references

Compact regulations for the safeguarding of good scientific practice

after the recommendations of the DFG commission „Professional Self Regulation in Science“ and the code of honour of the Freie Universität Berlin for the safeguarding of good scientific practice, 16th December 2002

The abidance of good scientific practice is a precondition for all efficient, internationally acknowledged scientific work.

Each person working in science is obliged to familiarise her- or himself with the rules of good scientific practice before beginning to work in science. Instruction in the rules and the possible consequences of misbehaviour is provided by the supervisor or an assigned person of the scientific institution. Receipt and acknowledgement of the rules must be confirmed in writing before the start of employment.

1. Always work according to the letter of the law (*lege artis*).
2. All methods and results must be documented in writing in indelible form by using laboratory notebooks. The pages of the laboratory notebook must be numbered so that no pages can be belatedly removed.
3. Originals of the laboratory notebooks must remain in the lab/institute and must be stored there for at least 10 years. In the case of a departure of a scientist, copies can be taken, but never the originals.
4. Primary data as the basis for publications (x-rays, blots, autoradiographs, protocols, etc.) and electronic primary data media must be stored for at least 10 years on durable and safe media within the institution where they were generated.
5. Copies of the data must be produced at the end of every year and must be stored with the representative separately from the original data for the safeguarding of good scientific practice of the scientific institution.
6. Results must be reproducible and should generally be questioned (quality assurance and reproducibility).
7. The contributions of the scientists and of cooperating partners/working groups must be truthfully disclosed. Co-authorship should only be granted to those who contributed to the generation of the data and/or provided intellectual contributions to the design, performance, analysis, or interpretation of the published

data. Data on the same subject previously published by other authors must be cited appropriately.

References:

DFG recommendations on professional self-regulation in science (Selbstkontrolle in der Wissenschaft):

http://www.dfg.de/download/pdf/dfg_im_profil/reden_stellungnahmen/download/empfehlung_wiss_praxis_1310.pdf

Code of honour and statutes for the safeguarding of good scientific practice at the FU Berlin:

<http://www.fu-berlin.de/forschung/service/Ehrenkodex-ab292002.pdf>

Authorship in publications:

<http://www.ICMJE.org>