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Guidelines for safeguarding good scientific practice in the Helmholtz Centre for Environmental Research GmbH – UFZ

	Approved	**Brought into force**		
Department	Science & Technology Board	Executive Management		Supervisory Board
Name	Dr. Klotz	Prof. Dr. Teutsch	Dr. Grassmann	Decision from
Date	18.12.2014	18.12.2014	18.12.2014	
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Preamble[1]

Generally recognised principles of good scientific practice have been developed since modern research emerged in the 17th century. This scientific practice is based on the maxims of conscientiousness and honesty in the establishment and presentation of scientific issues, of integrity in the assignment of ideas and results to their originators, and of ensuring that documentation and presentation is as complete as possible in order to promote scientific dialogue, enable results to be verified and allow objective criticism on ideas, processes and results, including the right of error.

The basic principles of good scientific practice detailed here are based on the relevant recommendations published by the German Research Foundation (DFG) on 17 June 1998 and the updated version of 3 July 2013, and have been adapted to the research conditions in the Helmholtz Centre for Environmental Research GmbH – UFZ.

The UFZ is responsible for organising research and providing early career support, two inseparable aspects. The UFZ regards it as vitally important to create and actively foster an atmosphere of openness, creativity and commitment. A vibrant research environment, organised into working groups, plays a key role in preventing scientific misconduct. The UFZ takes steps to prevent scientific misconduct to discharge its responsibility. We would like to refer in this context to the UFZ guidelines, for example for structured doctoral program and for leadership, which are also employed for this purpose.

The UFZ investigates any reasonable suspicion of scientific misconduct. If misconduct is confirmed, once the matter has been investigated, the necessary (legal) steps will be taken.

The objective at the UFZ is to establish corresponding basic principles of care and for assuring reliability, and to define quality assurance standards.

In particular, these guidelines define general principles for scientific work at the UFZ (1), define regulations for leadership responsibility and cooperation within working groups (2), provide guidelines for supervising early career researchers (3), describe continuous training in this field (4), regulate the safeguarding and storage of primary scientific data (5), describe the steps taken to protect data, particularly relating to medical and social science studies (6), portray joint interaction with regard to scientific publications (7), pinpoint possible conflicts of interest between science and industry (8), describe the special protection accorded to “whistleblowers” (9) and detail the election and role of Ombudspersons (10) (in Section A).

The content also includes guidelines for initiating an investigation in the event of suspected misconduct or evidence of scientific misconduct (in Section B).

[1] Where this text refers to researchers, managers, affected parties etc., they are to be understood as titles and always include both genders.

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Section A

Good scientific practice

These regulations governing good scientific practice are mandatory for all persons involved in research work at the UFZ.

1. Basic principles of research practice

In addition to the national, European and international regulations governing research practice, the following general principles of scientific practice must be observed at the UFZ:

a) General principles for research practice

- Research integrity and conscientiousness shall be upheld, and an open dialogue maintained as a basic prerequisite for all scientific work (see 2.).
- Young early-career researchers shall receive adequate scientific and professional support and be taught the guidelines for good scientific practice (see 3. and 4.).
- Originality and quality shall always take precedence over quantity as performance and assessment criteria for recruiting, promoting or appointing researchers or allocating funds; performance and assessment criteria shall be aligned to this basic principle.
- All general principles and faculty-specific regulations for extracting, selecting, processing and storing data shall be rigorously observed (see 5. and 6.).
- The principle of systematic scepticism: researchers shall be open to questioning their own results and/or the results of their own division. The test of a research result can be its reproducibility. The more surprising a result, or even the more desired a result, the more important it is – within the scope of reasonable effort – to independently repeat the process leading to the result before it is published.
- Researchers should be aware of tacitly accepted axiomatic assumptions; they must question their own interests or morally motivated wishful thinking and be systematically aware of possible misinterpretations caused by the inability of methods to account fully for the object of research (over-generalisation).

b) Regulations for collegiality and collaboration (see 2.)

- The research work of others must not be hindered.
- The academic qualifications of early career researchers shall be supported.
- Researchers shall be open to factually founded scientific criticism and doubt voiced by colleagues and employees, regardless of the hierarchical status of those involved.
- Errors and mistakes shall be admitted.

c) Regulations for publishing results (see 7.)

- Research results must be published in principle (Principle of the Public Nature of Research).
- Any errors in published materials shall be corrected in an appropriate manner.
- Any literature used shall be assessed fairly and cited.
- Researchers shall uphold integrity in crediting the contributions of employees/co-authors.
- As far as possible, publicly-funded research results shall be made freely available.

d) Regulations for professional review processes

- The work of colleagues shall be reviewed diligently and without self-interest and prejudice.
- Reviews shall not be delayed.
- Reviews shall not accommodate favours.
- Researchers shall refrain from reviewing if they are biased or suspect they may be biased.

e) Observation of specific internal UFZ regulations

- ... for example the guidelines “Further principles for supporting UFZ employees for the start-up of companies” (see also 8.).

2. Leadership responsibility and cooperation in research organisational units

The head of each research organisational unit at the UFZ bears particular responsibility for organising the unit in an appropriate manner, which ensures that the management, supervision, conflict management and quality management of the unit is clearly assigned, enabling these functions to be discharged effectively.

Research working groups must collaborate in a manner that the results achieved in specialised division of labour can be shared, criticised and integrated into the common state of knowledge regardless of hierarchical considerations within the group. The head of a working group requires professional expertise, a physical presence and be able to maintain a clear overview. Where this is no longer feasible due to the size of the division or for other reasons, management responsibilities must be delegated to ensure that the manager-to-staff ratio remains manageable.

3. Support of early career researchers

Particular attention must be paid to training and supporting early career researchers and instructing them to work in accordance with the guidelines on good scientific practice.

In all research organisational units at the UFZ, care must be taken to provide early career researchers with adequate support and supervision and to appoint a primary contact person.

4. Further training

The UFZ discharges its responsibilities to its research and technical personnel by instructing them regularly on the basic principles of research work and good scientific practice and on the consequences of scientific misconduct. To this end, the UFZ endeavours to organise appropriate and compulsory further training courses. Early career researchers are also informed in courses within the HIGRADE doctoral programme on the principles of good scientific practice.

5. Protection and storage of primary data

The protection of primary research data is essential to enable research results to be verified or to allow objective criticism. Where this data forms the basis for publications, property rights (e.g. patents) or ongoing research or development work, it must be stored on permanent and secure data carriers in the UFZ for at least ten years, during which time it must remain accessible to the organisational unit in question. The research working group in question is responsible for ensuring that the data remains accessible and readable for this period of time. The data must be made accessible to any third party with a legitimate interest.

Research investigations, experiments and numerical calculations can only be reproduced or reconstructed if all important steps of the process have been made clear. Hence this work must

be recorded in sufficient detail, and the records stored for at least ten years, so that if anyone questions the results after they have been published, the records can be produced accordingly.

The relevant details and fields of responsibility – particularly with regard to standards for recording data factually correctly and authorising access to the data – will be regulated and defined by the head of the department in a manner adequate to the research focus of the department in question. Some principles from the GLP (Good Laboratory Practice) guidelines on quality assurance in health-related and environmentally-relevant production areas, for example, can be applied to research.

6. Data protection, particularly with regard to medical and social science studies

In principle, personal details must be anonymised. In cases where the personal details of test subjects are the object of research, the research-specific regulations detailed in the Federal Data Protection Act (BDSG) must be observed. Personal details must be anonymised as soon as the objective of the research allows this. Up until this point, individual details concerning personal or material circumstances, which can be linked to an identified or identifiable person, must be stored separately. To this end, personal details must be replaced in the research file by a case ID and stored together with the case ID in a separate file. The two may only be linked where this is necessary in order to achieve the research objective.

Apart from the obligation to separate data, the obligation to block personal details must also be observed in research work. If a test subject demands that his or her personal details are to be deleted, the data must be disabled in principle. Disabled data may no longer be used for further research purposes. Regular access may only be made to this data where this is necessary to investigate suspected cases of scientific misconduct. Consult the data protection officer should questions arise as to how to deal with personal details.

7. Research publications

Publication is the most important medium for making research results known to other researchers and to the general public. By publishing their work, researchers reveal results and accept responsibility for their scientific reliability. Hence, publications which report on new research results should describe these results and the methods used to gain them in as complete and clear a manner as possible, and refer completely and correctly to any preliminary work conducted by the working group itself or by other researchers. Previously published articles should only be quoted to the extent necessary for understanding the context. Any findings which support the submitted results, or call them into question, should also be disclosed. If more than one researcher was involved in the research work or on the publication based on the work, the regulations on authorship (see Appendix 2) must be observed. The financing or funding of the project must be disclosed.

The issue of naming authors embraces both research ethics and copyright aspects. Anyone who claims or assigns authorship without the right to do so violates the law. Anyone who denies authorship without justification is, at the very least, acting in an unethical manner. One aim of research ethics is to credit researchers with their research achievements. Copyright law, on the other hand, does not protect the content of research publications as such, but merely the authorship. Hence, anyone involved in the creation of the publication as described in Appendix 2 is an author.

8. Conflicts of interest between research and industry

When collaborating with commercial enterprises, areas of conflict often arise, generally resulting from a clash of the interests of research with political, business or financial interests, e.g. the practice of applications for trademark rights (patents) or the confidentiality of unpublished data. Secondary employment as a reviewer or adviser can also lead to conflicts. For this reason,

connections to industries must be organised and conducted as a partnership of equals. Business considerations must not take priority over freedom of research.

To prevent conflicts of interest from arising, all persons involved in a research project must state their financial and other interests and links to their supervisor / person in charge where there is any possibility that they could clash with the research work in question. In addition, there must be a strict separation of personnel with management responsibilities in the UFZ and those with management responsibilities in a company (including spin-off companies; see the guidelines "Further principles for supporting UFZ employees for the start-up of companies".

9. Protection of whistleblowers

One problem of scientific misconduct is that violations are not always recognised, or are not followed up by the research or scientific community. Researchers frequently shy away from voicing their suspicions of scientific misconduct because they are worried they may suffer reprisals, or be mobbed, suspended or isolated. Conversely, early career researchers in particular frequently find that they are not taken seriously by their seniors when they voice suspicions of scientific misconduct. The UFZ aims to combat these tendencies with the following regulations. Well-founded whistleblowing does not represent denunciation or antisocial behaviour, but is a necessary step in the event of suspicion that the principles of research ethics have been violated. A whistleblower/informant expressing a founded suspicion is not the one harming his colleagues or the UFZ, but the researcher guilty of the misconduct in question. The identity of whistleblowers shall, as described below, be protected and kept anonymous as far as possible in preliminary investigations and the investigation itself. Early career researchers are worthy of particular protection. Experience from the past has shown that it is primarily doctoral researchers whose advancement suffers if they have reported scientific misconduct, or if they themselves have become the victims of unfounded suspicions of misconduct.

10. Ombudspersons

The members of the Science & Technology Board (WTR) shall elect at least two neutral, qualified Ombudspersons who are known to be persons of integrity (where possible one man and one woman), to serve the UFZ for a four-year term and act as arbitrators in conflicts relating to questions of good scientific practice, or to advise on general questions of good scientific practice. These Ombudspersons shall be supported in their work by the management of the UFZ, in particular by providing clear guidelines on the no-tolerance policy for scientific misconduct.

a) Election

All members of the UFZ Science & Technology Board are eligible to vote and Ombudspersons shall be appointed by a majority vote. All research assistants who have been working under contract for the UFZ for at least six months may exercise a passive voting right. Members of the Scientific Management Board or executive staff and heads of department may not be elected, since the whole point of an Ombudsperson is to be an independent point of contact outside of the UFZ management. It is strongly preferable to elect researchers with a permanent contract, to guarantee maximum independence and so that there is as little personnel fluctuation as possible. They should not hold any other post which might lead to a conflict of interest, such as membership of the Works Council. Ombudspersons should have experience in training early career researchers and be familiar with conducting research projects – also in an international context. It is also desirable for the Ombudspersons to come from departments which are as dissimilar as possible.

Suitable measures must be taken to publicise the names of the elected Ombudspersons.

b) Tasks

In particular, Ombudspersons serve as a confidential contact person to offer advice to those involved where there is a suspicion that good scientific practice has been violated, or in cases of conflict arising therefrom. In cases of suspected scientific misconduct, the Ombudspersons shall proceed in accordance with Section B and instigate a preliminary investigation. In addition, the Ombudspersons shall observe the general development and identify problem areas which could give rise to scientific misconduct, and furnish the WTR with suggestions for preventing this.

c) Confidentiality

Ombudspersons shall treat all information supplied during discussions on possible misconduct with the utmost confidentiality. They are not obliged to reveal this information to the management. The Ombudsperson must write up a report to inform the management and the head of department if, after making a preliminary investigation of the suspected case, the allegation/suspicion does not, with a strong likelihood, appear to be unfounded, or if the conflict could not be resolved. If a full investigation is to be initiated, the WTR Executive Committee (WTR-GA) shall be informed, and will then be commissioned by the management to conduct a formal investigation of the suspected scientific misconduct.

d) Reporting duty

Once a year, the Ombudsperson shall furnish the WTR and the management of the UFZ with an anonymised report on their work.

Section B

Regulations on instigating an investigation in the event of suspicion of scientific misconduct

The research ethics and the self-image of the researchers working at the UFZ dictate a zero-tolerance policy for scientific misconduct, either by their own or other researchers.

If misconduct is suspected, the correct procedure is to discuss the possible lapse directly and personally with the person responsible, to clarify and, where possible, rectify the situation, or clarify it with the aid of the customary instruments of personnel management.

If a solution cannot be reached in this manner, and the suspicion or allegation of scientific misconduct arises against a person working at the UFZ (hereafter: the affected person), the following investigation procedure for scientific misconduct is available at the UFZ.

The procedure for clarifying the existence or non-existence of scientific misconduct is subdivided into two parts:

- the preliminary investigation
- the formal investigation.

Attempts to reach an amicable settlement are to be expressly encouraged throughout both procedures, where this is objectively justifiable.

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I. Preliminary investigation

(1) If there is a founded suspicion of scientific misconduct, as per the Catalogue of Conduct (Appendix 1), the Ombudsperson must be informed immediately. This information can be passed on in writing or verbally; if passed on verbally, the Ombudsperson shall make a written note of the content. Information can be passed on by both internal and external persons, if the suspicion of scientific misconduct concerns a person working at the UFZ, or if the person suspected works for the UFZ.

(2) The Ombudsperson documents in an appropriate manner the nature of the suspicion, evidence, the name of the informant and the name of the affected person. Information may also be passed on anonymously. The Ombudsperson approached in each individual case shall act as liaison person to the person(s) reporting the founded suspicion of misconduct.

(3) The underlying objective of the Ombudspersons' work is to mediate between the parties involved, as far as this is possible and where this is objectively justified. The Ombudsperson shall inform the person suspected of misconduct at the earliest possible date of the nature of the allegation of scientific misconduct, the evidence and the current state of the investigation. The affected person shall be given the opportunity to make a statement within two weeks. The name of the whistleblower shall not be revealed at this stage without his or her permission. Once the affected person has made a statement, or once the two-week deadline has passed, the Ombudsperson will, where necessary, take further steps in the preliminary investigation to clarify the situation. The Ombudsperson shall clarify the situation and test the plausibility of the allegations to see how specific and relevant they are, to disclose possible motives and with a view to dispelling the suspicion. The Ombudsperson may appoint persons of their choice to assist in clarifying the facts of the case, with the objective of mediating in any conflicts between the persons involved.

(4) a) When these measures and mediation attempts have been concluded, or if these measures are not necessary, no report need be written on the preliminary investigation if the outcome is positive. The outcome shall be deemed positive if the suspicion cannot be sufficiently confirmed, or the allegations prove to be groundless, or if the conflict was resolved.

b) If the preliminary investigation confirms that there are sufficient grounds for suspecting misconduct, but does not furnish final evidence for misconduct, the Ombudsperson shall forward the results of the preliminary investigation to the management in the form of a written report and recommend that the preliminary investigation is followed by a formal investigation.

c) If the results of the preliminary investigation provide evidence of misconduct, the Ombudsperson shall add to the report recommendations for further steps, and close the preliminary investigation.

(5) The final report drawn up by the Ombudsperson on the results of the preliminary investigation shall include the nature of the allegation, the evidence and the results of the preliminary investigation, with all supporting reasons. The name of the informant may only be revealed if the affected person cannot otherwise defend himself objectively, or if the trustworthiness or motives of the informant need to be called into question. Copies of this written report shall be given to the management, to the head of the department in question, and on demand to the informant.

(6) Until culpable misconduct has been proved, or until a conflict has been resolved, details of all persons involved in the matter and the findings of the preliminary investigation must be treated with the utmost confidentiality.

(7) In order to adhere to labour law deadlines or time limits, the management may initiate all necessary steps and inform the responsible departments and the Works Council where necessary.

(8) Objection may be made to an Ombudsperson on the grounds of suspected partiality if there is reason to believe that he or she may be biased. In these cases, the matter shall be passed on to another Ombudsperson. If the second Ombudsperson is also deemed to be biased, the matter can be passed further to the Research Ombudsman appointed by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation).

The affected person who feels that his/her rights have been violated, and the Ombudsperson per se retain the right to file an objection at any stage during the proceedings.

II. Formal investigation

The management is responsible for initiating a formal investigation – having first, where necessary, consulted with the WTR Executive Committee (WTR-GA) – by commissioning the WTR-GA to conduct a formal investigation of the allegation of scientific misconduct.

1. Members of the investigation committee

(1) The investigation committee (IC) shall consist of a Chairperson, a Deputy Chairperson and a minimum of three advisers.

(2) Suitable candidates for Chairperson and Deputy Chairperson shall be proposed by the members of the WTR, and elected by a majority vote by the WTR to serve a four-year term. Members may be re-elected. The Chairperson shall convene and chair any meetings.

(3) All members of the WTR are eligible to vote. External researchers working for the UFZ have a passive voting right.

(4) The advisers are appointed by the elected Chairperson and his/her Deputy on a case-by-case basis. They should be recruited from the research field of the UFZ and preferably from different research disciplines and should not work directly with the affected person.

(5) The members of the IC should not hold any other post which might lead to a conflict of interest, such as membership of the Works Council, sit in the Board of Management or work as superior/employee of the affected person.

2. Partiality on the part of members of the investigation committee

An objection to a member of the IC on the grounds of bias must be addressed to the committee itself, which will decide whether or not the objection is founded, in the absence of the affected person of partiality.

If the member is deemed to be biased, he or she shall be exempted from the committee for the investigation in question. If the Chairperson is deemed biased, the Deputy Chairperson shall take his or her place. If the member in question is an adviser, the Chairperson shall appoint another suitable person to take his or her place.

3. Procedural regulations for the investigation committee

(1) The investigation committee receives the commission to investigate the case from the management, via the WTR-GA, together with the written report by the Ombudsperson on the preliminary investigation. IC negotiations are held in closed sessions. The IC shall assess

the evidence to confirm or refute the allegation of scientific misconduct. The IC is authorised to take all steps necessary to clarify the matter in hand. To do so, it may request all necessary information and statements and, on a case-by-case basis, it is also authorised to call in experts from the scientific discipline affected. The person affected by possible misconduct must be given suitable opportunity to make a statement. In general, he or she shall be given two weeks to make a statement, starting from the date on which he or she was informed by the IC. An oral interview may be conducted at the request of the affected person. He or she may invite a person of their trust to be present at this interview; the same permission applies to any other person interviewed.

(2) The name of the informant shall only be revealed if the affected person is otherwise unable to defend himself objectively, in particular if the credibility of the informant is of essential significance in establishing the misconduct.

(3) The IC has a quorum if at least four members are present. Resolutions may be passed by the IC with a simple majority. If the vote is a tie, the Chairperson shall cast the deciding vote.

(4) Following the hearings, the investigation committee shall come to one of the following decisions:

a) The proceedings are terminated because sufficient evidence cannot be furnished to support the suspicion, or the suspicion proved to be unfounded.

b) The proceedings are terminated because, during the proceedings, an opportunity, in which the informant and the affected person were also involved, arose to clear the allegations, and it was not (or no longer) necessary to intervene because of scientific misconduct.

c) The proceedings are terminated because of a minor case of scientific misconduct. The IC retains the right to make the termination of the proceedings dependent upon the fulfilment of certain requirements.

d) A final report on the proceedings is presented to the management if there is evidence of scientific misconduct. This final report includes the nature of the misconduct, the evidence, the results and proposals for further steps (Appendix 2).

(5) The management makes the final decision on the further steps to be initiated.

(6) The management shall draw up a written report of the final reasons for their decisions and forward this without delay to the affected person, to the head of the department, to the WTR-GA and to the Ombudsperson responsible for conducting the preliminary investigation, as well as to the informant on demand.

(7) If the proceedings are terminated in accordance with points 4a - 4c, at the request of the affected person, the results must be published on a public notice board or on the intranet two weeks after the final decision has been made and the affected person has been informed.

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Appendix 1

Catalogue of Conduct deemed to be scientific misconduct

Scientific misconduct is defined as intentional and grossly negligent misrepresentation in a scientific context, the violation of intellectual property rights, the impediment of another person's research work, or the violation of the recognised regulations on authorship.

In particular, misconduct includes:

Misrepresentation

(1) inventing data,
(2) falsifying data, e.g.
  a) by selecting or rejecting undesirable results without disclosing them,
  b) by manipulating a diagram or image,
(3) incorrect details in a job application or application for funding (including false information on the publication medium and on publications currently being printed),

Violation of intellectual property rights

(4) with regard to the copyrighted work of others, or key scientific findings, hypotheses, theories or research approaches originating from another researcher
  a) the unauthorised use under presumption of authorship (plagiarism),
  b) the exploitation of research approaches and ideas, in particular as reviewer (intellectual property theft),
  c) the presumption or unfounded acceptance of research authorship or co-authorship,
  d) the manipulation of content or
  e) the unauthorised publication or unauthorised provision to a third party, where the work, findings, hypothesis, theory or research approach in question has not yet been published,
(5) claiming the (co)authorship of a third party without their prior consent,

Impediment of another person's research work

(6) sabotaging research work (including damaging, destroying or manipulating experiment set-ups, equipment, documents, hardware, software, chemicals or other objects needed to conduct the experiment in hand),
(7) removing primary data, where this violates legal stipulations or the established, discipline-related principles of research work.

A joint responsibility for the scientific misconduct of others may arise by:

- active involvement in the misconduct of others,
- knowing about and tolerating the misconduct of others,
- knowingly co-authoring a publication containing misrepresentations,
- gross negligence of supervisory obligations.

Ultimately, each case shall be assessed on its own merits.

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Appendix 2

Generally accepted regulations of authorship

All persons named as authors in a publication must have a legitimate claim to authorship, and all persons with a legitimate claim to authorship must be named as authors. Authors must have been sufficiently involved in the publication in order to be regarded as responsible for the part of the publication assigned to their authorship. Where there is a team of authors, the most prominent members of the team (e.g. lead author, corresponding author / senior author) must take responsibility for ensuring the code of good scientific practice is upheld with regard to the work as a whole, from the very beginning through to publication. Authorship may only be assigned if a substantial contribution has been made to

a) the concept and planning of the work, or
b) the collection, analysis or interpretation of data, or
c) the drafting or wording of the manuscript, or the critical reworking of the publication, to a major degree.

Moreover, all authors must authorise the final version of the manuscript before it is published.

Fund-raising and funding, data collection and the general management of a research institution or division do not in themselves constitute authorship. Authors are always jointly responsible for the content of the publication. So-called “honorary authorships” are prohibited. Tribute should be paid to third party support in the acknowledgements. If research work is conducted by more than one research group, all groups involved shall be regarded as one group in terms of authorship. All members of these groups named in the publication as authors must fulfil at least one of the conditions a), b) or c) listed above, and authorise the final version of the manuscript before publication. The order in which authors are listed must be determined mutually by all co-authors. The reasoning behind the order must be comprehensible. These regulations apply to all disciplines, whereby special allowances may be made for individual disciplines within this framework. In numerous experimental disciplines in particular, it has become conventional over the last years in the scientific community, when publishing original work, to compile the list of authors in an order to allow outsiders to gain a rough idea of the contribution made by the co-author in question. Hence the list of authors serves to reflect a correct public perception, and not merely the justified acknowledgement of co-authorship claims acquired by involvement in the work.

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Appendix 3

Catalogue of possible measures / consequences in the event of scientific misconduct

The following catalogue of possible sanctions and/or consequences for scientific misconduct – which is by no means exhaustive – should be regarded as guidelines. As each case needs to be judged on its own merits, and as the degree of scientific misconduct also plays a role, it is not possible to provide standardised guidelines; they must be adapted to each individual case.

The Human Resources department and the Legal department may be approached for support.

1. Consequences under employment law

As the affected person in a case of scientific misconduct in the UFZ is likely to be employed by the UFZ, consequences under employment law must always be examined as a matter of priority.

(1) Formal warning
A formal warning, which must be made in writing and added to the personnel record, is the preliminary step to dismissal, and may only be used in cases of minor scientific misconduct, where the affected person is not yet to be dismissed.

(2) Dismissal
An employee may only be dismissed once the circumstances of the case have been examined and the interests of both parties taken into consideration, and a renewal of the employment contract is deemed unreasonable. In severe cases of scientific misconduct, this will generally apply to the contractual relationship between an employee and the UFZ.

(3) Termination of contract
Besides dismissal with or without notice, a mutual agreement may be reached in certain cases to terminate the employment contract.

(4) Procedure for employment contracts based on civil service contracts
For researchers who are employed by the UFZ on a civil service contract, the civil service laws applicable to professors with a similar status shall apply. One can assume that a severe case of scientific misconduct is reason enough to remove a researchers from their post in accordance with civil service law, and that dismissal is therefore justified.

2. Academic consequences

The UFZ cannot inflict academic consequences in the form of stripping someone of their academic titles; this may only be done by the body which awarded the title, generally a university. They must therefore be informed in cases of severe scientific misconduct, if this is in any way connected to the acquisition of the title.

In particular, this includes:

(1) loss of the doctoral degree or
(2) loss of authorisation to teach.

3. Consequences under civil law

The following civil law consequences may be considered:

(1) Exclusion from the premises of the UFZ,
(2) Claim for handover of any research material or similar from the affected person,

(3) Injunctive relief or prohibitory claims based on copyright, personal rights, patent rights or competition rights,

(4) Repayment claims, e.g. of fellowships, third-party funding or similar,

(5) Claims for damages by the UFZ or third parties for personal injuries or damage to property.

4. Criminal consequences

Criminal consequences may only be taken in cases where it is suspected that the scientific misconduct in question also violates the German Criminal Code (StGB) or other laws, or otherwise constitutes a criminal offence.

If the investigating authorities are contacted, the management must also be informed. A vote is recommended.

Possible criminal offences include:

(1) Violation of the personal or private sphere of others
Section 202a StGB: Data espionage
Section 204 StGB: Exploitation of the secrets of another

(2) Offences against the person
Section 222 StGB: Negligent manslaughter
Sections 223, 230 StGB: Causing bodily harm, either wilfully or through negligence

(3) Offences against property
Section 242 StGB: Theft
Section 246 StGB: Unlawful appropriation
Section 263 StGB: Fraud
Section 264 StGB: Subsidy fraud
Section 266 StGB: Embezzlement

(4) Forgery
Section 267 StGB: Forgery
Section 268 StGB: Forgery of technical records

(5) Criminal damage
Section 303 StGB: Criminal damage
Section 303a StGB: Data tampering

(6) Violation of copyright
Section 106 UrhG: Unauthorised exploitation of copyrighted works

5. Revocation of research publications / Information which has been made public /published in the press

Research publications which contain misrepresentations due to scientific misconduct shall be withdrawn in so far as they are not yet published, and rectified in so far as they are already published (revocation).

Cooperation partners shall be notified in an appropriate manner where necessary. In principle, the author(s) and publisher involved are responsible for doing this; should they fail to act, the UFZ will take steps accordingly.

In cases of severe scientific misconduct, the UFZ shall inform any research institutions or research organisations affected by the misconduct.

In certain cases, professional associations / bodies can also be informed.

The UFZ retains the right to inform any third parties involved or the general public to protect third persons, uphold trust in the scientific integrity of the UFZ, restore the research reputation of the UFZ, prevent further damage and, in general public interest.