Medizinische Hochschule
Hannover

The Principles of Hannover Medical School

for the Safeguarding of Good Scientific Practice and Procedural Rules for Dealing with Scientific Misconduct

Inhalt

The Principles of Hannover Medical School for the Safeguarding of Good Scientific Practice and Procedural Rules for Dealing with Scientific Misconduct according to Section 41 Abs. 1 S. 1 NHG

Preamble

These principles take up the guidelines of the „Deutsche Forschungsgemeinschaft (DFG)" (German Research Foundation) and the recommendations of the „Hochschulrektorenkonferenz (HRK)" (German Rectors' Conference) on the subject of „Safeguarding Good Scientific Practice"1. They are partly based on wording of the HRK and the DFG on the same topic.

The text describing these principles is accessible on the Hannover Medical School (MHH) homepage. They are incorporated in Section 7 of the employment contract for physicians and scientists and are thus to be regarded as binding guidelines for scientific work at MHH. A printed copy of these guidelines will be given to all employees prior to employment. These principles apply to all MHH members from the day of their adoption by the Senate of the Hannover Medical School.

The code „Guidelines for Safeguarding Good Research Practice" adopted by the DFG in August 2019 replaces the memorandum „Safeguarding Good Scientific Practice" which was valid until then. It supplements the „Procedural Guidelines for Good Scientific Practice" published by the DFG in April 2016.

If the scientific activity concerns research involving human subjects, special rules must be observed. In addition to ensuring the quality of the data, they aim to protect the patients or subjects. Therefore, before the research project begins, such projects must be submitted to the independent MHH Ethics Committee. More details can be found on the homepage of the ethics committee. Furthermore, as part of the implementation of the „Transparency in Research" guidelines, the MHH Commission for Research Ethics is also available to give advice on responsibly approaching the freedom of research and research-related risks.

§ Section 1 Honesty as a fundamental principle of scientific activity

Honesty towards oneself and others is the basic principle of research work in all scientific institutions and disciplines worldwide. It is the ethical norm of all research work regardless of how greatly the rules of research work may differ between disciplines. In this sense, it is the task of the self-government of science to ensure compliance with the rules of good scientific practice. All MHH members and affiliates are required to observe and teach the principles of „Good Scientific Practice" (GSP).

§ Section 2 Principles of good scientific practice

The scientists as well as their supporting staff are required to apply the „Principles of Good Scientific Practice" and to set an example. They are also required to convey the „Principles of Good Scientific Practice" to students and early career researchers as early as possible in teaching and scientific training. This applies in a special way to the university teachers. In addition, scientists are encouraged to regularly update their knowledge of good scientific practice standards and the state of research. The most important basic rules of good scientific practice include:

- Working lege artis and applying and presenting appropriate quality assurance measures to all steps in the research and publication process;
- Documenting results, including the backup and storage of primary data (e.g. in the MHH laboratory notebook or, in the case of clinical studies, in accordance with the Principles of Good Clinical Research Practice (GCP);
- Consistently questioning and critically reviewing all results;
- Maintaining strict honesty with regard to the contributions of collaborators, competi tors, and predecessors;
- Supervising early career researchers in a responsible manner;
- Clearly assigning and exercising leadership responsibility in research work units;
- Jointly (together with all authors) assuming responsibility for scientific publications.

Further information on various aspects of good scientific practice, on GSP events, and on eLearning „Good Scientific Practice" is available on the MHH homepage (Ombuds Office).

§ Section 3 Organizational and leadership responsibility

The selection and development of personnel at MHH is based on binding procedures and principles (e.g. the „Qualification of Personnel at Hannover Medical School", a service agreement between presidential board and staff council). The promotion of young researchers is of particular importance to MHH as a medical university and educational institution. Further education offers for personnel development are supplemented by special programs for doctoral candidates and offers of the MHH Equal Opportunity Office. The MHH employees can and should constantly update and expand their knowledge with the help of these offers.

The MHH president has created a clear framework and structures for conveying and complying with good scientific practice by establishing the Ombuds Office Services and the office of the GSP Commission. They are located in the president's office. MHH-internal obligatory events on this subject, which are specially tailored to researchers and research-associated personnel of different career levels ensure that legal and ethical standards can be adhered to at all times. Advice from the Ethics Committee, the Clinical Ethics Committee of the MHH, and the Central Animal Laboratory also ensure these standards. Researchers at MHH are therefore encouraged to obtain information from the appropriate offices before beginning a project.

Research work unit leaders are responsible for the qualitative evaluation of the individual employee's performance. In addition to purely scientific performance, other aspects should also be included, such as special commitment to academic self-governance, public relations, teaching, and others. Absence due to personal, family, or health reasons and the possibly resulting delay in training, qualification, and career development will be adequately taken into account for the evaluation.

The scientific performance of research work units is evaluated based on publications and third-party funds acquired and spent. It is acknowledged through the allocation of MHH-internal performance-oriented funds, LOM for short, in accordance with the MHH guidelines for the allocation of LOM.

§ Section 4 Research

Research projects are designed after thorough literature searches according to the current state of research and by taking into account possible gender and diversity aspects. Research results are analyzed using adequate methods and mainly information sources provided by MHH.

The roles and responsibilities of all persons involved in a research project (researchers, research support staff, doctoral students, students, etc.) should be established at the beginning of the project and always be clearly defined. The data may be used in particular by the person who collects it.

When designing research projects, researchers must take legally binding rights and obligations as well as requirements arising from contracts with third parties into account.

Potential research consequences and ethical aspects of any research project should be thoroughly considered, and all necessary approvals and ethics votes must be obtained before a research project begins. Approvals and votes must be submitted upon request. Furthermore, agreements on exploitation rights of the research results resulting from the project (publications, patents…) should be documented before the project begins. If these agreements, especially those arising from third party contracts, impair the use by the originator(s) of the data, this must be communicated to the originator(s) before data collection.

Research projects must be carried out using sound and transparent methods. When establishing new methods, special attention should be paid to quality assurance and the establishment of reliable standards.

The origin of data, organisms, materials, and software used for the research project must be transparently disclosed. The source code of publicly available software must be documented and permanently citable.

The subsequent use of research results and materials after completion of the research project, i.e. details about planned destruction, storage or use of data, software, materials, and future users must be regulated and documented before the end of the project.

§ Section 5 Documentation requirement

Primary data that form the basis for publications must be saved on durable data media in the research work unit in which they were created and remain accessible for 10 years from the date of publication. In justified exceptional cases, a shorter storage period is possible. If data cannot or should not be stored for specific reasons, this must be explained and documented by the researchers involved. The documentation requirement also applies to results that do not support the original project thesis. The scientists involved are responsible and must prove proper and immediate documentation. Furthermore, every experiment as well as every calculation must be recorded in detail so that, if necessary, knowledgeable persons can reproduce the experiment and reconstruct the calculations. An MHH-authorized laboratory book (in paper form or digitally) must be used to record the research (also non-experimental). The book must be registered to the respective user. No pages or entries may be removed from the laboratory book. Related data that (due to their format) cannot be stored there must be clearly identifiable by references or links in the laboratory book. As for the book, it must be stored securely for at least 10 years. If changes are made to entries in the MHH laboratory book, the date of the change with time, name, and signature must be recorded. The use of alternative forms of documentation must always be reasonably justified. For clinical studies, the statutory provisions on protecting the rights of subjects or patients must be observed, as must statutory archiving requirements. The corresponding information can be found on the homepage of the MHH Ethics Committee.

The loss of original data from a laboratory violates the basic rules of good research practice and implies grossly negligent or even dishonest behavior. If scientists change institutions, the original data shall remain where these were collected. Under individual agreements between the previous institution and the new one, individualized arrangements for storing original data may be made. The agreement as to where these records are to be kept shall be recorded on the original data medium and signed by the persons involved.

As part of the research data management, the MHH library offers all MHH members the chance to record their research data to make it available to a broad public. The data owners decide who may use these data.

§ Section 6 Publications

Principally, all research results obtained at the MHH should be introduced into scientific discussions and made accessible to the public, e.g. via conference contributions or publications. This also includes making the data, materials, methods, workflows, and other relevant information on which the data is based available in accordance with FAIR principles (findable, accessible, interoperable, re-usable). In individual cases, there may be reasons to avoid making results public. However, this decision must not be permanently dependent on third parties. The published results must be completely and understandably described. In this context, own and third-party preliminary work must be cited completely and correctly. Splitting research results into inappropriately small publications is to be avoided.

The scientists involved in a research project must agree on authorship of the publication. Consent to publish results may not be withheld without good reason. Consent of the clinic, institute, or department heads is not required to publish research results. Publication cannot be prevented without valid and convincing reasons (verifiable criticism of data, methods, or results).

Authors shall choose the publication organ carefully and, if necessary, seek advice from the MHH Library. The scientific quality of a contribution does not depend on the publication organ in which it is published. Aside from publications in books and journals, professional, data, and software repositories as well as blogs can also be considered, provided they have established their own guidelines for good research practice.

§ Section 6.1 Authorship

Authors of scientific publications are jointly responsible for its content. Only those who have made a significant contribution to a scientific publication can be given authorship status. So-called ‚honorary authorship' is not permitted. In publications that present scientific findings, these are to be described in full and in a readily comprehensible and transparent manner. Own and others' previous work must be fully and correctly cited. Previously published findings are to be cited so that they are clearly identified as such, and to the extent that they are necessary to understand the relationship between previous and present findings.

The only persons to be mentioned as the authors of an original scientific publication shall be those authors who have made a significant contribution to the design of studies or experiments, to the preparation, analysis and interpretation of data and the wording

of the manuscript, and who have agreed to its joint publication, i.e. those who share responsibility for the publication. This means that all persons who have contributed to the design of studies or experiments, or to the production, analysis and interpretation of data, must be given the opportunity to be involved in the preparation of the manuscript. Leadership of an institution or organizational unit in which the publication originated does not in itself justify authorship.

However, substantial participation may exist if the scientific institution head provides the framework for executing the project and if relevant external funding has been allocated to him or her upon request. This would satisfy the criteria for project leadership. However, the acquisition of external funding does not, per se, constitute automatic entitlement to co-authorship. This depends on factors such as the nature of the application for external funding (external funding awarded in response to a proposal or funding allocated by industry, etc.) and is, in case of doubt, to be discussed in a direct and open manner within the project group.

If a contribution is not sufficient to warrant authorship, such support may be appropriately acknowledged in a footnote, in the preface, or under acknowledgements. Honorary authorship where precisely such contributions have not been made is not acceptable.

Authorship order shall be agreed upon in a timely manner, but no later than when the conference paper or manuscript is written. This should be documented and archived until publication. Changes to the author list or order during the publication and review process must be discussed with all co-authors, jointly agreed upon, and documented.

- Provisions concerning doctoral students:
  to be published in consultation with their supervisors should be given the opportunity to write the manuscript, if necessary with the help of their supervisors. In this case, they are entitled to first or shared first authorship. Dissertations are often sub-projects of an extensive scientific program. In this case, for planned publications containing the results of the completed dissertation, first authorship is granted to the scientist preparing the manuscript. The contribution of the doctoral candidate is to be acknowledged and marked accordingly in the publication. If doctoral projects involve private funding, the doctoral students must be informed in writing before the start of the thesis which project areas are subject to a possible confidentiality clause and cannot be published without the consent of the third party funders. However, all research results that the doctoral candidates collect during the course of their doctoral projects must be released for use in a monograph, as this can be protected by a so-called blocking notice. The supervisors are responsible for drafting the contract with the third party funders accordingly.

- First or last author:
  uthorship. First authorship may also be shared among two or more contributors. The order in which these authors appear is determined by senior and corresponding author(s).

  The last author (senior author) named for a given publication is generally the person in charge of the project. In many cases he or she is also the corresponding author. Project leaders are those persons who substantially initiated the project on which the publication is based, participated actively or in an advisory capacity in the project's implementation, and, based on their experience, promoted the project itself by providing advice and ideas. The mere fact that the project leaders created the scientific framework for executing projects, obtained external funding and/or were generally responsible for the scientific operation in their areas of responsibility shall not entitle them to senior or corresponding authorship.

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Section 6.2 Reviewer activities

Scientists who act as reviewers or assume the function of editors shall thoroughly examine beforehand the respective publication organs for their integrity.

Strict confidentiality must be maintained when evaluating submitted manuscripts, grant applications, or a person's expertise. The assurance of confidentiality precludes the disclosure of the contents to third parties or the use for own purposes. Whether, in exceptional cases, such tasks may be delegated to third parties must be discussed in advance with the publishers, funding agencies, etc. and must be presented transparently. Facts that could give rise to concerns of bias are to be disclosed. The obligation of confidentiality and transparency with regard to possible bias also applies to scientific advisory members and decision-making bodies.

§ Section 7 Copyright regulations for dissertations, postdoctoral theses, and other publications (flyers, brochures)

The most important copyright regulations that must be observed when writing dissertations or postdoctoral theses are:

- When using previously published images, text, etc. in the context of postdoctoral dissertations and doctoral theses, the copyright must be maintained, because the publishers who published the original work often have the exclusive right of use/publication. This can pertain to both the author's own publications as well as those of others.

- For scientific qualification work, e.g. cumulative dissertations or postdoctoral theses, which has appeared in a journal as a published article, permission for secondary publication must always be obtained unless the publication is open access. It must be clarified individually with the publisher whether the publisher's layout may be adopted. The same applies to other publications such as flyers and brochures.

The use of excerpts from already published articles in dissertations and postgraduate theses is covered by citation law in accordance with Section 51 of the German Copyright Act (UrhG). If the author's own published articles are part of the new, independent scientific work and if they are used to illustrate its content and the source is acknowledged, the inclusion of the publication is permitted as a „large quotation".

§ Section 8 Approach to dual-use research of concern

Scientists responsible for conducting research must consider whether the planned experiments are at risk of misapplication that falls under „Dual-Use Research of Concern" (DURC). This is the case if research results could be misused directly and without intermediate steps. If this is the case, the opinion of MHH's biological safety officer must be obtained.

§ Section 9 Responsibility for implementing the rules of good scientific practice

In research, each researcher is responsible for his or her own conduct. Those who lead a research work unit are responsible for ensuring that the conditions for „good scientific practice" are met within their group and that the rules are observed. This requires active communication within the work group and, in particular, the disclosure of scientific data in ongoing internal dialogues within the group. It is, therefore, the task of group leaders to ensure that all members of the group are aware of their rights and obligations with regard to good scientific practice. Scientific research work unit leaders must create an environment in which this code is complied with. It is particularly important that hypotheses, theories, and (first and foremost) scientific data generated by individual members of the group are openly discussed and also critically examined. Leading a research work unit requires presence and awareness. If these requirements are not adequately fulfilled, leadership functions must be delegated to qualified third parties.

Abuse of power and exploitation of dependents must be prevented under all circumstances. It should always be reported immediately by the persons concerned, either by the person directly affected or witnesses of the misconduct. They should report the misconduct to an appropriate body, e.g. the next higher superiors, the co-supervisors in a PhD project, or the MHH ombudsperson. These persons should then take action with appropriate intervention measures.

§ Section 10 Doctoral student passage

The supervision of doctoral students is regarded as a leadership function. Each research work supervisor must therefore be familiar with the rules of good scientific practice.
It is recommended that, before the work itself begins, the supervisor and the doctoral student jointly prepare a written outline on the execution and aims of the planned project. Both the supervisor and the doctoral student shall receive a copy of this outline before work commences. The outline shall contain a written note stating that the doctoral student has been informed by the supervisor as to the rules of good research practice. If the supervisors want to discontinue the supervisory relationship, the doctoral student should be informed no later than 6 months after the start of the dissertation. If after more than 6 months a conflict situation arises between the parties involved which cannot be resolved in any other way, the ombudsperson should be called in as early as possible as a mediator. The goal is to achieve a continuation and successful completion of the doctoral project. Further details are regulated by the doctoral regulations of the MHH.

§ Section 11 Violation of the rules of good scientific practice

Scientific misconduct occurs when, in a context of scientific importance, the required due care is intentionally or grossly negligently violated, e.g. by making false statements, violating the intellectual property of others, or interfering with the research activities of others. Each case shall be decided based on its individual circumstances.

In particular, the following may be considered as misconduct:

a. Making false statements
   - Data fabrication
   - Data falsification, e.g.:
     i. by the non-disclosed, specific selection of findings
     ii. by manipulation of a description or figure
   - Incorrect information in an application for employment or funding (including misrepresentation concerning the medium of publication and articles awaiting publication)
   - Circulation of unsubstantiated allegations in a scientific context

b. Infringement of intellectual property
   With respect to copyrighted work created by someone else or substantial scientific findings, hypotheses, teachings, or research approaches originating from others:
   - Unauthorized use while claiming authorship (plagiarism)
   - Exploitation of research approaches and ideas of others (theft of ideas), especially as a reviewer
   - The presumption or unfounded acceptance of scientific authorship or co-authorship
   - Falsification of content
   - The unauthorized publication and disclosure to a third party, prior to the publication of the work, finding, hypothesis, teaching, or approach to research

c. Claiming the (co-)authorship of another person without that person's consent

d. Sabotaging research work (including damaging, destroying, or tampering with expe rimental facilities, equipment)

e. Eliminating primary data wherever this violates statutory regulations or recognized principles of research work specific to the particular discipline

f. Abuse of dependency relationships such as:
   - Inadequate training and supervision of doctoral students
   - Employment laws and research dependencies
   - Forbid scientific exchange or publication without giving sound reasons
   - Discrediting protégés in the scientific community

g. Shared responsibility for misconduct may result from:
   - Participation in the misconduct of others
   - Knowledge of falsification by others
   - Co-authorship of publications containing falsification
   - Neglect of responsibilities

§ Section 12 Ombudsperson and GSP Commission

The Senate of the Hannover Medical School appoints an ombudsperson as a neutral and qualified contact for questions of ‚Good Scientific Practice'. The term of office is 5 years and re-election for one further term of office is possible. The ombudsperson is to be a faculty member of Hannover Medical School. His or her predecessor shall be Deputy Ombudsperson. If required, the Senate may appoint another person for this role. The ombudsperson has his or her own discretionary powers. He or she shall perform the preliminary review of the reported case. As an alternative to the MHH ombudsperson, whistleblowers or complainants can report their concerns to the „German Research Ombudsman". The members of this panel are equal to the local ombudsperson and thus do not process revisions of local ombudsperson procedures.

The Commission on Good Scientific Practice (hereafter GSP Commission) is also appointed by the Senate. The Commission consists of 5 members, one from each of the 4 sections of the MHH as well as one MHH expert for Legal Affairs. The term of office is 3 years and re-election is possible. The Commission is not bound by instruction. In general, the president shall request the GSP Commission to conduct a formal investigation. If allegations are made against the ombudsperson or the president, the GSP Commission may act on its own initiative.

Both bodies are to be staffed university-wide. The acting president and active members of the MHH senate can neither become ombudspersons nor members of the GSP Commission.

The GSP Commission elects a Chair and a Deputy Chair from its members for the given term of office. Decisions of the GSP Commission are made by a simple majority vote. The ombudsperson, the deputy ombudsperson, and the dean are members of the GSP Commission in an advisory capacity.

The preliminary examination and the formal investigation do not replace other procedures governed by law or statute (e.g. regulatory procedures of the universities, disciplinary proceedings, labor court proceedings, criminal proceedings). Where necessary, these are to be initiated by the relevant bodies or organizational units of MHH.

The work of the ombudsperson and the GSP Commission shall be supported by assistants (Referent:innen).

§ Section 13 Procedure for alleged scientific misconduct

The activities of the ombudsperson and the GSP Commission shall be subject to the following procedural rules.

In exercising their due discretion, they shall in particular observe the following principles:

a. Welfare, fairness, and objectivity towards all persons in question
b. Absolute confidentiality
c. Respect for the fundamental principle of innocent until proven guilty
d. Early involvement of persons in question
e. Protection of personal rights
f. Confidential treatment of the whistleblowers' identity. Disclosing their names to the persons concerned by the ombudsperson or the GSP Commission shall only be considered if the persons affected by the allegations cannot otherwise properly defend themselves. If the whistleblowers turn to the public with their suspicions, an individual decision shall be made as to whether their confidentiality should be lifted.
g. A whistleblower's report must be based on concrete and factual information and must be presented in an easily understandable form, usually in writing.

§ Section 13.1 Preliminary review

a. Allegations of scientific misconduct against active or former MHH members, em ployees, or students shall generally be received by the Ombuds Office, in exceptio nal cases also directly by the ombudsperson. Alleged scientific misconduct shall only be investigated in the context of an ombudsperson procedure if it occurred during the MHH affiliation. Information may be provided orally or in writing. If the informa tion is provided orally, a written note of the suspicion and the justifying circumstan ces and evidence shall be recorded. At the request of the whistleblower, the ombuds person shall undertake the preliminary review of the reported case. The report must be made in good faith and must not have any disadvantage for the scientific or pro fessional advancement of the whistleblower or the person affected by the allegati ons. In particularly serious cases of reported scientific misconduct, the ombudsperson

may also take action against the whistleblower's will. In this case, the identity of the whistleblower should be protected in the best possible way to avoid him or her suffering any disadvantages from reporting the alleged misconduct.

b. Reports made anonymously will only be reviewed if the whistleblower presents and substantiates reliable and sufficiently well-founded facts.

c. In the event that scientific misconduct is suspected, the ombudsperson is entitled to request the relevant documents submitted and to question the person(s) concer ned or, if necessary, to also question persons from relevant institutions or others involved. This will generally take place in one-to-one interviews and/or in an inter view together with both or several parties. At the request of the person(s) concer ned, another person of their choice may be present. This individual must be a mem ber or affiliate of the MHH. The same applies to other persons to be heard. As requi red, the ombudsperson may also summon individuals. The summons is mandatory for MHH members and affiliates. If necessary, the president may be included in the process at a non-public meeting with due observance of confidentiality. The prelimi nary review shall generally be completed within approximately 12 weeks of an alle gation being noted. This requires full cooperation on the part of all those involved, and excludes periods where the proceedings are delayed by those concerned.

d. During the preliminary examination, both the person affected by the report and the whistleblower(s) must be given the opportunity to comment orally or in writing.

e. Should the ombudsperson declare him or herself to be biased in the matter, the case will be transferred to the deputy ombudsperson. If the deputy ombudsperson also pronounces him or herself to be biased, the whistleblower or complainant should turn to the „German Research Ombudsman". This recommendation also applies in the event that bias on the part of the president cannot be ruled out.

f. The ombudsperson shall generally submit a final report to the MHH president. Once approved by the president, this – either in full or, as appropriate, extracts thereof, and/or with relevant illegible text – shall be provided to the person(s) concerned by the ombudsperson, stating the further proceedings. Findings, agreements, and measures specified in the final report are to be implemented by all those involved. This is a binding requirement. It may be reviewed by the ombudsperson/Ombuds Office at a later date without notice. In the event that a suspicion of scientific miscon duct is not confirmed, the whistleblower's identity is to be protected, unless it can be proven that the report was deliberately false. If the preliminary review was unable to dispel the suspicion of scientific misconduct, the president shall make a decision on whether the GSP Commission should initiate a formal investigation. If applicable, whistleblowers personally affected in their own scientific interests will be informed whether scientific misconduct could be ruled out in the preliminary review.

g. If a mediation process involving the ombudsperson is completed in agreement with all parties involved, no final report shall be prepared. Instead, a final agreement shall be recorded. All those involved shall receive a copy of the agreement, which shall be archived for 10 years. Also in these cases, the actual implementation of the agreed measures can subsequently be reviewed by the ombudsperson.

h. Records of the main points arising from the interviews (generally made during the preliminary review) are to be stored in the ombudsperson's office at the MHH for 10 years as are all other documents pertaining to the proceedings in question. Inspection of the files is expressly not intended at any time, except after appropriate release for the GSP Commission for possible further examination. Furthermore, use of the records by other institutions/bodies of the MHH or external parties is excluded.

i. The preliminary review is subject to strict confidentiality by all parties involved, inclu ding the president. This shall also apply after the procedure has ended.

j. In the case of persons who are repeatedly reported for possible scientific misconduct, previous proceedings may be used to decide on further procedures in the current case.

§ Section 13.2 Formal investigation

a. Primarily on instruction by the president, allegations of scientific misconduct shall be fully investigated by the GSP Commission. Confidentiality shall be maintained. The GSP Commission is required, after due assessment of the circumstances, to carry out and implement the appropriate measures necessary to investigate the matter.

b. If individual members of the GSP Commission are biased, they will not be involved in the investigation. Should the entire GSP Commission declare itself biased, it is recommended that the whistleblower or complainant turn to the „German Research Ombudsman". The persons suspected of misconduct shall be informed in a timely manner by the GSP Commission of a formal investigation. After the documents have been viewed, the person(s) concerned shall be given the opportunity to make a written statement within a specified time limit. They shall be advised about the ombudsperson's final report and, as appropriate, shall be informed about incriminating facts and evidence. The whistleblowers must also be given the opportunity to make a written or oral statement. If required, the GSP Commission may also summon the persons concerned to an oral hearing. If necessary, persons from institutions or others may also be called. This summoning and participation in the procedure is mandatory for members and affiliates of the MHH. At their request, the persons concerned can generally be granted an oral hearing if this is not provided by the GSP Commission. If desired, a person of trust can be called in for the hearing. This person must be a member or affiliate of the MHH. Since both stages of the procedure

(preliminary examination and formal investigation) are internal MHH procedures, legal representatives are not permitted at any time. If the GSP Commission cannot adequately assess the scientific issue, it may, at its own discretion, call in additional experts, and/or temporarily accept them as additional advisory members of the GSP Commission.

c. The GSP Commission shall deliberate in non-public oral proceedings. The formal investigation is subject to strict confidentiality for all parties involved. This shall also apply after the procedure has ended. The GSP Commission shall consider whether scientific misconduct has occurred, taking all evidence into account in an unbiased manner.

d. It may be necessary to disclose the name of the informant if it is not otherwise pos sible for the person concerned to properly defend him- or herself. Reasons could be (for example) that the credibility and motives of the informant require investiga tion with regard to the allegation of possible misconduct. The GSP Commission shall decide this on a case-by-case basis. The GSP Commission may suspend or terminate the proceedings if a legal dispute on the same matter is initiated by the courts or a public prosecutor.

e. If the GSP Commission considers misconduct to be unproven, it shall permanently discontinue the proceedings and inform the president stating the main reasons. The persons concerned shall be notified in writing by the president of the discontinuation of the proceedings.

f. If the GSP Commission regards misconduct as proven, it shall submit the findings of its investigation in writing to the president with a recommendation on how to proceed further, also with regard to the protection of the rights of others.

g. The person(s) concerned is/are to be notified by the president of the main reasons that have led to a finding of scientific misconduct. This must be done in a timely manner and in writing. Whistleblowers personally affected in their own scientific interests may be informed whether scientific misconduct has been determined, but not on the specific sanction measures. The extent to which the whistleblower and/or the public are to be informed shall be decided on a case-by-case basis. The GWP's ruling cannot be appealed.

h. If, in the course of a GWP proceeding, findings are obtained that suggest a serious violation of the GWP rules by one or more persons, the GSP Commission may inform the ombudsperson.

i. The procedural steps (as laid down in the standard operating procedure for ombuds person proceedings) shall be documented stating the date.

j. The records of the formal investigation shall be kept for 10 years after the proceedings have ended. Only the president, the GSP Commission, the ombudsperson, and persons personally affected by the procedure may inspect the records. The latter will be granted access to the files after the end of the proceedings (at the earliest) if this is necessary to effectively exercise their legal interests (e.g. in the event of proceedings for the withdrawal of a title).

§ Section 13.3 Further procedures and sanctions

a. If scientific misconduct has been determined by the GSP Commission, the president will initiate appropriate measures upon the recommendation of the GSP Commis sion. Where appropriate, the necessary official MHH bodies and committees shall be involved. This is intended both to uphold MHH's scientific standards and the rights of all those directly and indirectly affected. The sanctions for scientific misconduct shall be based on the circumstances of each individual case.

b. In the event of culpable scientific misconduct at the Hannover Medical School the following steps, in particular, may be taken individually or in combination:
   - Corrections of lists of authors
   - Withdrawal or correction of publications, monographs etc.
   - Request for proposals on the prevention of recurrences with subsequent documentation of successful implementation
   - Cutting and withholding of state funds for research
   - Written reprimand
   - Withdrawal of teaching license
   - Suspension of the ongoing doctoral or postdoctoral process
   - Revoking of academic degrees

c. If there is a justified interest, the decision may also be disclosed to third parties in an appropriate manner. This may include, for example, the following measures:
   - Notification of current employers
   - Notification of external funders
   - Notification of former and/or current collaborating partners or co-authors
   - Notification in particular of scientific institutions, scientific journals and publishers (in the case of publications), funding bodies and scientific organizations, professional associations, government ministries, and/or the general public.

d. In addition, the president may initiate employment, civil, criminal, and/or regulatory/ disciplinary actions, depending on the circumstances of a given case.

e. The president shall, in a timely manner, inform the GSP Commission of the steps he or she has initiated and shall, if his or her recommendation differs from the decision made by the GSP Commission, outline in writing the reasons that have led to the divergent decision.

These principles to ensure good scientific practice at the MHH shall apply from the day of their adoption by the MHH Senate at its meeting on 10 February 1999 and their updated versions dated 10 September 2008, 12 October 2011, 18 October 2017, and 8 July 2020.

By signing their employment contract (Section7: Compliance with the rules of good scientific practice adopted by the Senate of the MHH in their current version is part of the employment contract obligation), all employees of the Hannover Medical School who work in teaching and research commit themselves to comply with these rules in their scientific work.

This implies that researchers assigned responsibility by the MHH as supervisors of early career researchers shall, in the context of writing theses such as dissertations or Master's theses, provide a sufficient and comprehensive introduction to the guidelines of good scientific practice. Face-to-face seminars on good scientific practice are available for students, doctoral students, and teachers at the MHH.

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Contact: Dr. Beate Schwinzer
Phone: +49 511 532 6002, Fax: +49 511 532 6003,
E-Mail: schwinzer.beate@mh-hannover.de

Translation: Dr. Birgit Lüttig
Medical Writer
E-Mail: luettig.birgit@mh-hannover.de

Layout and Print: Digitale Medien
Phone: +49 511 532 3941

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