

## **1. Guidance document issued by the Leuphana University of Lüneburg to safeguard good scientific practice and to deal with scientific misconduct**

Pursuant to § 41 par. 1 sentence 1 of the Niedersächsisches Hochschulgesetz (NHG, higher education act of the Federal State of Lower Saxony), the senate of the Leuphana University of Lüneburg on May 20, 2009 approved the following guideline to safeguard good scientific practice and to address scientific misconduct at the Leuphana University Lüneburg. The presidential committee of the Leuphana University of Lüneburg approved the guideline on June 3, 2009.

### **Preamble**

The honesty of scientists is the fundamental requirement for scientific work. In contrast to error, dishonesty contradicts the principles and essence of science. There are no basic rules that can take the place of the honesty of scientists. Good scientific practice, which the Leuphana University of Lüneburg considers to explicitly include transfer-oriented scientific work, must be demonstrated, taught and practiced by appropriate role models and general conditions as well as by being an integral component of the scientific culture of the Leuphana University Lüneburg. As in other walks of life, misconduct cannot be thoroughly prevented, but it can be kept to a minimum.

All institutions of higher education are requested to protect themselves from falsifications and to take action against misuse and manipulation of scientific results within the sphere of their responsibility. The following regulations are based on the "Proposals for Safeguarding Good Scientific Practice" published by the DFG (German Research Foundation) commission on professional self-regulation in science. They follow the implementation of and fundamental resolution regarding safeguarding good scientific practice passed by the German University of Administrative Sciences Speyer on May 13, 2002 and by Trier University in June/July 2002. The following guideline consolidates the guidelines of the former University of Applied Sciences of Northeastern Lower Saxony (senate resolution of June 25, 2003) and the Lüneburg University (senate resolution of July 3, 2002) to form one common guideline.

The members of the Leuphana University of Lüneburg who are instructors, the professors in scientific and artistic fields (§ 21 par. 1 NHG) as well as visiting scientists at the Leuphana University of Lüneburg who have not been released of their obligations (§ 3 of the statutes of the Leuphana University Lüneburg) are all required to comply with this guideline. The respective departments will at regular intervals and with reference to the guideline instruct research associates regarding the fundamental principles of scientific work and good scientific practice. When new contracts are agreed with academic staff, the employees will be obligated to comply with this guideline.

## **SECTION I**

### **RULES FOR GOOD SCIENTIFIC PRACTICE**

#### **§ 1 Fundamentals of good scientific work**

(1) <sup>1</sup>Good scientific practice means complying with recognized disciplinary principles of scientific work and acting in accordance with the most recent level of knowledge. <sup>2</sup>It requires knowledge and use of current literature as well as application of proper methods and findings. <sup>3</sup>It is exemplified by doubt and self-criticism, by critical analysis and verification of the obtained insight, by honesty in regard to contributions made by colleagues, other employees, competitors and predecessors.

(2) <sup>1</sup>Careful quality assurance is essential to scientific honesty. <sup>2</sup>Besides honesty to oneself and other ethical standards, quality assurance is the foundation of scientific professionalism. <sup>3</sup>It is ensured by the (critical) cooperation in scientific working groups, mutual checking of results and clear allocation of responsibilities. <sup>4</sup>The head of a scientific project is responsible for quality assurance. Essential elements include correct and comprehensive documentation of all working steps, methods, scientific procedures and resulting insight.

(3) <sup>1</sup>An important aspect of good scientific practice is the responsibility for the (co-)authorship. <sup>2</sup>Authors of scientific publications always share responsibility for the contents. <sup>3</sup>The author is accountable, identifies himself/herself with the scientific results and assumes responsibility for the content and publication.

(4) <sup>1</sup>Good scientific practice is based on rules governing good collective responsibility and cooperation. <sup>2</sup>This requires thorough, unbiased and impartial reviewing of colleagues' and students' work without arbitrary delay, the refusal to review work in the case of conflict of interest, and confidential treatment of scientific results designated as such.

(5) The foundation for ethical behavior in group processes at the Leuphana University of Lüneburg consists of rules governing good collective responsibility and cooperation, prompt and correct disclosure of information, openly sharing knowledge, striving to achieve commonly defined goals and mutual professional and human respect.

(6) Good scientific practice is also implemented by a professional scientific management concept. In addition to striving for professional project management to implement and follow research projects, this includes using third-party resources only for the intended purpose as well as equal treatment of all colleagues by all members of the university community entrusted with tasks related to scientific management.

## § 2

### **Organizational structures**

(1) All members of the Leuphana University of Lüneburg dealing with scientific tasks are responsible for quality assurance of the scientific work performed at the Leuphana University of Lüneburg (§ 16 par. 1 p. 1 NHG).

(2) <sup>1</sup>Responsibility for direction, supervision, resolution of conflicts and quality assurance lies with the members of the Leuphana University of Lüneburg who are instructors and with the professors in scientific and artistic fields (§ 21 par 1 NHG) or with members of the university community explicitly tasked with general direction and direction of research groups or centers, e.g. deans or heads of institutes. <sup>2</sup>They ensure that

- The focus of a working group's research is clearly defined
- The objectives of the scientific work and tasks of the individual scientists have been clearly specified and delegated
- Each participant has been clearly allocated responsibilities (rights and obligations)
- Work flows and compliance with objectives are regularly monitored

- Younger scientists (e.g. scientific and technical employees, Ph.D students, diploma candidates, graduate students, Bachelor and Master students) are properly supervised and advised and that their methods and results are not disclosed until they have been checked and expressly approved by the respective supervisor.

### § 3

#### Data

(1) <sup>1</sup>The person responsible for scientific projects specifies clear rules and regulations on the type of records kept and on data documentation. Primary data shall be securely stored for ten years in a durable form. <sup>2</sup>This ensures the reproducibility of the publication as well as providing ways for authorized third parties to access the information – especially in the case of experimental projects.

(2) The Leuphana University of Lüneburg is striving to standardize the respective rules and regulations, taking into consideration the different aspects of the various disciplines.

### § 4

#### Publications

(1) Scientific results, particularly those obtained through research with public funding, should be disclosed to the scientific community in the form of publications; thus the scientific publications are the product of the scientists' work – just like the scientific observation or the scientific experiment itself.

(2) Scientific publications must completely and understandably demonstrate the results and the methods applied, unless the specific type of publication makes this impossible.

(3) Findings that support the authors' hypotheses and views as well as those that contradict them should be presented in a balanced manner in a way that best suits the type of publication.

(4) Relevant work presented by other scientists should be properly cited, taking into account the unique disciplinary aspects as well as the type of publication.

### § 5

#### Authorship

(1) <sup>1</sup>Any persons contributing substantially to the conception of the studies or experiments, to the development, analysis and interpretation of data as well to the draft, formulation or critical editing of the manuscript's contents, and anyone consenting in written form to the publication and thus assuming responsibility for it should be named as an author – but only such persons should be named. <sup>2</sup>Authors of scientific publications always share responsibility for the contents.

(2) <sup>1</sup>Persons providing technical support in data collection, funding or general leadership of the department conducting research are not considered to be co-authors. A so-called "honorary authorship" is inadmissible. The same applies to simply reading the manuscript without contributing to the actual composition.

<sup>3</sup>Persons who have contributed in such ways can be mentioned in the acknowledgments.

## § 6

### Criteria for performance evaluation

<sup>1</sup>Originality and quality should always take precedence over quantity when specifying criteria for performance evaluation (e.g. for bonus payments W2 and W3, examinations, academic degrees, career advancement, appointments and the allocation of resources). <sup>2</sup>Productivity can be viewed only in conjunction with quality indicators.

## § 7

### Education and next generation of scientists and scholars

(1) <sup>1</sup>The education of young scholars as well as adequate guidance and promotion are particularly important. <sup>2</sup>Proper mentoring can be achieved e.g. with regular meetings, advising and support as well as consistent monitoring of the progress of a young researcher's work.

(2) <sup>1</sup>An introduction to the rules of good scientific practice is an integral component of the curriculum of a Bachelor or Master student. Students attend compulsory courses at the college and graduate school (e.g. as part of the Leuphana semester or the complementary course of studies). <sup>2</sup>The intention is to encourage students to be honest and to assume responsibility in scientific work as well as to convey an awareness of the potential for scientific misconduct.

(3) Each graduate student should have a primary advisor. In fields where active groups are in intensive competition with one other, there is a real danger, particularly for younger group members, of situations of real or supposed overburdening. Healthy communication within a group and high quality supervision are the best means to prevent group members from slipping into dishonest practices. Leading a group includes the responsibility to guarantee such conditions at all times.

(4) <sup>1</sup>A written declaration confirming compliance with this guideline and with the fundamental principles of good scientific practice is an admission requirement for scholars attaining habilitation (former qualification for university professorships in German-speaking countries) as well as being a professional requirement for junior professors. <sup>2</sup>The regulations applying to those seeking habilitation should include such an admission requirement. <sup>3</sup>Sentence 1 applies correspondingly; the purpose of such a declaration is to serve as a requirement for admission or acceptance as a graduate student. <sup>4</sup>The regulations applying to those seeking a doctorate degree should include such an acceptance or admission requirement.

(5) Young scientists and scholars are obligated

- to thoroughly document and save all of their research findings
- to act responsibly in regard to their work and their colleagues
- to regularly report on the progress of their scientific work
- to continue their education through participation in research funding events.

## **SECTION II**

### **PROCEDURE FOR DEALING WITH SCIENTIFIC MISCONDUCT**

#### **§ 8 Scientific misconduct**

(1) Scientific misconduct means that scientific work intentionally or negligently contains falsifications, that intellectual property rights of others have been infringed upon or that the research work of others has been sabotaged in any way.

(2) Misconduct is particularly:

1. Falsifications

a) Fabrication of data

b) Falsification of data, e.g.

- Selecting or rejecting undesirable results without revealing that this has occurred
- Manipulating an image or illustration

c) Falsified representation of the state of research

d) Incorrect information in an application for employment or for funding (including inaccurate information relating to forms of publication or to forthcoming publications)

e) Incorrect statements on the scientific performance of applicants in the selection committees.

2. Infringement of intellectual property rights relating to any pieces of work protected by copyright, substantial scientific findings, hypotheses, teachings or approaches to research established or made by someone else

a) Unauthorized use under presumption of authorship (plagiarism)

b) Exploitation of scientific approaches and ideas, particularly as an assessor (theft of ideas)

c) Presumption or unfounded acceptance of scientific authorship or co-authorship

d) Falsification of content

e) Arbitrary delay in publication of a scientific work – particularly on the part of the publisher or assessor – or

f) Unauthorized publication and unauthorized granting of access to third parties when the document, findings, hypothesis, teachings or research approach has not yet been published

g) Use of the (co-)authorship of another person without his/her permission.

### 3. Compromising other persons' research activities by

a) Sabotaging research work (including damaging, destroying or manipulating the set-up of experiments, devices, documents, hardware, software, chemicals, cell and microorganism cultures or other matters needed by another person to conduct an experiment)

b) Grossly incorrect, deliberately untrue or misleading expert evaluation on research activity of others and "sweetheart assessments."

4. Disposal of original data, when this violates legal regulations or fundamental principles of scientific work for a specific discipline.

(3) Joint responsibility for misconduct can arise from

1. Active involvement in the misconduct of other persons (specifically perpetration, incitement, and aiding and abetting)

2. Knowledge of falsifications of other persons

3. Co-authorship of falsified publications

4. Significant neglect of supervisory duties

## § 9

### **Ombudspersons**

(1) <sup>1</sup>After consultation with the research associates, the presidential committee will in agreement with the deans appoint two mediators as ombudspersons to arbitrate or solve disputes related to good scientific practice which do not yet contain any reproach of scientific misconduct. <sup>2</sup>The names of the ombudspersons will be announced to the university community.

(2) <sup>1</sup>The first ombudsperson should be an experienced scientist from amongst the instructors at the Leuphana University Lüneburg. <sup>2</sup>This person must be someone who, upon receipt of information he/she may receive, would not be compelled to act as a result of his/her function, e.g. as the dean or as a supervisor. <sup>3</sup>The second ombudsperson should be an experienced scientist from amongst the research associates at the Leuphana University Lüneburg. <sup>4</sup>The ombudspersons should represent different departments and, when possible, be one man and one woman.

(3) <sup>1</sup>The term is three (3) years; reelection is permitted. The ombudspersons exercise their office in an honorary capacity, independent of and free from instructions. <sup>2</sup>Everyone involved should support the ombudspersons in exercising their office.

(4) The ombudspersons each have an alternate in the event that they should be prejudiced or absent. Sentences 2 and 3 apply correspondingly to selection of the alternates.

(5) The ombudspersons will report separately to the presidential committee at regular intervals and whenever the need arises.

## § 10

### **Ethics committee**

(1) A standing ethics committee is appointed to monitor compliance with the rules pertaining to safeguarding good scientific practice.

2) <sup>1</sup>The ethics committee is appointed for a term of three (3) years by the presidential committee following a unanimous proposal by the deans and is comprised of the following members:

- Three persons from amongst the instructors
- One person from amongst the research associates
- One person from amongst the student body

They must all be affiliated with the Leuphana University of Lüneburg and be nominated for appointment by the status group. <sup>2</sup>If a member of the ethics committee resigns or withdraws for any reason, a new member shall be appointed for the remainder of the term.

(3) <sup>1</sup>The committee chooses a chairperson from its midst. <sup>2</sup>Persons with particular experience in issues related to scientific ethics or scientific misconduct can be consulted in an advisory capacity.

(4) If a member of the ethics committee of the Leuphana University of Lüneburg is suspected of scientific misconduct, this person is excluded from participation in the ethics committee.

(5) <sup>1</sup>The ethics committee decides on the actual specifications required. <sup>2</sup>Members of the university community should give the committee all of the information required to clarify the facts of the case of scientific misconduct.

(6) <sup>1</sup>The ethics committee renders decisions with a simple majority. <sup>2</sup>However, the determination of scientific misconduct requires the agreement of all five members of the committee.

## § 11

### **Ombudspersons' responsibilities**

(1) <sup>1</sup>The ombudspersons act as mediators and advise persons informing them of suspected scientific misconduct and persons who feel they have been wrongfully accused of such. <sup>2</sup>The ombudspersons can work together or independently of one another, depending on which the person being advised chooses. <sup>3</sup>All members of the scientific community of the Leuphana University of Lüneburg have the right to a consultation at short notice. <sup>4</sup>The ombudspersons check the plausibility of the accusations. <sup>5</sup>They will maintain confidentiality as long as the suspicions are not known beyond the sphere of those directly involved, unless others agree to extend the circle beyond those involved, or if, in the event of grave and strong suspicions, the ombudspersons are obligated to inform the university management in order to initiate legal action for which there is a time limit.

(2) A process is initiated with a written application to the ombudspersons.

(3) <sup>1</sup>The ombudspersons will hear the person affected in a non-public preliminary process. <sup>2</sup>The person suspected of misconduct shall be given the opportunity to state his/her case upon presentation of the

incriminating facts and evidence within one week of expression of the allegations. <sup>3</sup>During this phase, the name of the person submitting the application to open proceedings will not be revealed to the person accused of wrongdoing without consent.

(4) <sup>1</sup>The ombudspersons have the right to end the proceedings at their own discretion at any time during the preliminary process. <sup>2</sup>They must also inform the accused party and the applicant in writing.

(5) <sup>1</sup>If the ombudspersons do not end proceedings, they will submit the allegations in writing to the ethics committee of the Leuphana University Lüneburg. <sup>2</sup>The accused party will receive a copy of this document.

(6) The ombudspersons' decisions should be made unanimously. If a unanimous decision cannot be made, the ombudsperson representing the instructors will make the final decision.

## § 12

### **Procedure for allegations of scientific misconduct**

(1) <sup>1</sup>The procedure for investigating accusations of scientific misconduct is a self-regulating process amongst scientists (investigation procedure). <sup>2</sup>This procedure is handled with the utmost care by the ethics committee of the Leuphana University Lüneburg.

(2) <sup>1</sup>The investigation procedure aims to establish and evaluate the facts. <sup>2</sup>This procedure has no bearing on evaluations of employment, service, disciplines and higher education.

(3) <sup>1</sup>The investigation procedure is not public. <sup>2</sup>Everyone involved in the decision is obligated to maintain confidentiality, unless, in the event of grave and strong suspicions, the ombudspersons are obligated to inform the university management in order to initiate legal action for which there is a time limit.

(4) The applicant will be informed of the results of the procedure.

(5) <sup>1</sup>An investigation procedure may be initiated by the ethics committee only when grave allegations have been made against a scientist, and the process must be limited to the specific object. <sup>2</sup>The ethics committee will also begin proceedings when one of its members obtains direct knowledge of potential scientific misconduct.

(6) <sup>1</sup>The ethics committee must agree to open a formal investigation on the basis of the written allegations. <sup>2</sup>The committee decides either to reject the allegations and thus end the procedure or to open a formal investigation procedure.

(7) <sup>1</sup>The facts that form the basis for the suspicion expressed are to be determined. Precise determination of the incident should occur without delay. <sup>2</sup>The ethics committee of the Leuphana University of Lüneburg will initiate and perform the investigation and will report the initiation to the presidential committee. <sup>3</sup>Confidentiality should be maintained and the persons involved protected throughout the process. <sup>4</sup>The committee is authorized to take any steps required to determine the facts. <sup>5</sup>It can obtain all the information and statements required and can consult experts from the respective field when necessary. <sup>6</sup>The expert will examine the allegations to determine their correctness and significance, with the intention of determining ways to dispel the allegations. <sup>7</sup>All of the evidence must be presented in the course of the formal investigation procedure.

(8) <sup>1</sup>The ethics committee determines the procedure at its own discretion. <sup>2</sup>The accused's right to be heard shall be safeguarded. <sup>3</sup>The accused has the right to a reasonable period of time in which to reply. <sup>4</sup>He/she can demand to make a personal statement – as can the person who informed the committee, in the event of counter statements. <sup>5</sup>The right of those involved to view the files is governed by the general provisions. <sup>6</sup>The accused can examine all evidence, meaning that he/she can question all witnesses and experts and offer evidence, witnesses or experts himself/herself.

(9) <sup>1</sup>The procedure should occur in such a way that the the personal and scientific integrity of persons who, through no fault of their own become involved in processes of scientific misconduct, suffers no damage. <sup>2</sup>As long as their suspicions cannot be deemed to be unfounded, persons presenting information should be protected from discrimination.

(10) <sup>1</sup>The clarification process should be completed within two to four weeks during the semester and within four to six weeks between semesters. <sup>2</sup>If external expertises are ordered, clarification should occur within four weeks of receipt of the expertise.

(11) <sup>1</sup>If the committee does not conclude that the accused is guilty of scientific misconduct, the process will be terminated. <sup>2</sup>The committee will inform the accused and the mediating ombudsperson of this decision.

(12) There is no internal appeals procedure for contesting the committee's decision to end the process.

## § 13

### **Proven scientific misconduct**

1) <sup>1</sup>If scientific misconduct can be proven, the ethics committee will issue a written verdict. <sup>2</sup>Reasons for the verdict should be stated. <sup>3</sup>The reasons should include, at a minimum:

- a) Statement of the facts
- b) The facts constituting the offense committed by the accused
- c) Presentation of the evidence on which the verdict is based.

(2) There is no internal appeals procedure for contesting the committee's verdict. The Leuphana University of Lüneburg management will be informed of the verdict and the reasons, along with a suggestion on how to deal with the decision and on appropriate action.

(3) Depending on the circumstances of the specific case and particularly the severity of the determined misconduct, sanctions may be imposed as legally permitted by the various fields of laws, and when appropriate multiple sanctions cumulatively, e.g.:

- a) Consequences related to labor and civil service law
  - Written warning
  - Extraordinary termination; in the event of strong suspicion, the committee or, when appropriate the ombudsperson(s), should inform university management, even before misconduct has been ultimately determined.
  - Termination of contract

- Sanctions pursuant to the disciplinary law of the state of Niedersachsen

b) Consequences under civil law

- Ban from the premises
- Claims against the suspect for return of possessions, e.g. of stolen scientific material
- Claims for injunctive relief and removal due to laws governing copyright, personal rights, patent rights and competition
- Repayment claims, e.g. for scholarships or external funding
- Claims for damages from third parties by the university

c) Consequences under criminal law; investigative authorities should be involved. In the event of strong suspicion of criminal activity, the committee or, when appropriate the ombudsperson(s), should inform university management, even before misconduct has been ultimately determined.

d) Recall of scientific publications

e) Informing of the public and the media

(4) <sup>1</sup>Scientific publications found to contain errors attributed to scientific misconduct should be retracted if they have not yet been published and corrected if they have already been published (recall). <sup>2</sup>When appropriate, cooperation partners should be informed in an appropriate manner. <sup>3</sup>This is a fundamental obligation of the author(s) and the publisher(s) involved; if they do not take action within a reasonable time, the Leuphana University of Lüneburg will initiate the permitted legal measures.

(5) In cases of grave scientific misconduct, the Leuphana University of Lüneburg will inform other research facilities and organizations as well as any professional associations that may be affected (Refer to par. 4, letter e).

## § 14

### Entry into force

This order goes into effect on the day it is published in the official bulletin "GAZETTE"; concurrently, the Lüneburg University order on investigation of allegations of scientific misconduct dated July 3, 2002 and the guidelines on safeguarding good scientific practice and handling scientific misconduct at the University of Applied Sciences of Northeastern Lower Saxony dated June 25, 2003 will no longer be valid.