

Academy of Finland guidelines on research ethics

Working in close consultation with the research community in Finland, the National Advisory Board on Research Ethics, an expert body appointed by the Ministry of Education, has drawn up guidelines for good scientific practice and procedures for handling misconduct and fraud in science. The Academy of Finland has committed itself to comply with these guidelines. The Academy's own guidelines on research ethics are based upon those given by the National Advisory Board on Research Ethics. The Academy expects that the guidelines given by the National Advisory Board and the Academy's own ethical guidelines shall be applied to all staff working on research projects funded by the Academy and to all holders of Academy research posts.

Adherence to the principles of good scientific practice is primarily the responsibility of each individual researcher and research group, but that responsibility is also shared by the director of the research unit and the management of the organisations conducting research. As well as complying with good scientific practice, the research community and the individual researcher shall take account of the legislation in force. The Academy's guidelines on research ethics are secondary to legislation and to the guidelines given by the National Advisory Board on Research Ethics.

1 Good scientific practice

The Academy's operation is geared to promoting the best interests of science and research. Misconduct and fraud in science have serious consequences for science. Although they are rare, the quest for prestige or other benefits in the research community may sometimes lead to the use of dishonest means. The research community must itself work to strengthen adherence to good scientific practice. In reviewing funding applications it receives, the Academy will consider how the researcher in charge of the proposed project and the research group have demonstrated their ability to manage research funds and in general to adhere to the principles of good scientific practice.

In keeping with the guidelines of the National Advisory Board on Research Ethics, the Academy has the following requirements for good scientific practice:

"For scientific research to be ethically acceptable and reliable and its findings credible, the conduct of research must conform to good scientific practice. Good scientific practice entails, among other things, that researchers and scientific experts

follow modes of action endorsed by the research community, that is, integrity, meticulousness and accuracy in conducting research, in recording and presenting results, and in judging research and its results;

apply ethically sustainable data collection, research and evaluation methods conforming to scientific criteria, and practise openness intrinsic to scientific knowledge in publishing their findings; and

take due account of other researchers' work and achievements, respecting their work and giving due credit and weight to their achievements in carrying out their own research and publishing its results.

Further, it is in keeping of good scientific practice that

research is planned, conducted and reported in detail and according to the standards set for scientific knowledge;

questions relating to the status, rights, co-authorship, liabilities and obligations of the members of a research group, right to research results and the preservation of material are determined and recorded in a manner acceptable to all parties before the research project starts or a researcher is recruited to the group;

the sources of financing and other associations relevant to the conduct of research are made known to those participating in the research and reported when the findings are published; and

good administrative practice and good personnel and financial management practices are observed."

In addition to these requirements set out by the National Advisory Board on Research Ethics, the Academy requires that

all application documents, including CVs and lists of publications, are compiled with care and that the information presented in the documents is accurate and truthful.

2 Violations of good scientific practice

It is in the interest of science that all allegations regarding improper conduct in research are investigated. The Academy's guidelines are intended for handling alleged violations of good scientific practice in situations where the suspect is a tenured researcher employed by the Academy or working at a university or other research institute with Academy funding. The Academy seeks to incorporate in its international agreements provisions regarding compliance with its ethical guidelines in the context of international cooperation, such as researcher exchange and international mobility of researchers more generally.

2.1 Definitions

For reasons of consistency the Academy's guidelines on research ethics use the same definitions as those issued by the National Advisory Board on Research Ethics.

Therefore in the Academy's guidelines, violations of good scientific practice are classified in the same way into two categories:

misconduct in science; and
fraud in science.

In keeping with the guidelines of the National Advisory Board on Research Ethics, misconduct in science and fraud in science shall be understood as follows:

“Misconduct and fraud in science may be perpetrated in the research process and in the presentation of results and conclusions. Misconduct and fraud in science not only violate the integrity of science, but those perpetrating them may also be guilty of an unlawful act. Honest differences in interpretations or judgments of data, meanwhile, are part of the scientific debate and do not violate good scientific practice.

Misconduct in science is manifested as

- *gross negligence and irresponsibility especially in the conduct of research*

Other examples of misconduct in science include

- *understatement of other researchers' contribution to a publication;*
- *negligence in referring to earlier findings;*
- *careless and hence misleading reporting of research findings and the methods used;*
- *negligence in recording and preserving results;*
- *publication of the same results several times as new; and/or*
- *misleading the research community about one's own research.*

Fraud in science means deceiving the research community and often also decision-makers. It is to give false information or present false results to the research community or to disseminate them for instance in a publication, in a paper presented at a scientific conference, in a manuscript submitted for publication or in a grant application. Different manifestations of fraud are illustrated below in four categories: fabrication, misrepresentation, plagiarism and misappropriation.

Fabrication is to present fabricated data to the research community. Fabricated data have not been obtained in the manner or by the methods described in the report. Presenting fabricated results in a research report is also fabrication.

Misrepresentation (falsification) means intentionally altering or presenting original findings in a way which distorts the result. Misrepresentation means scientifically unjustified alteration or selection of results. It is also misrepresentation to omit results or data pertinent to conclusions.

Plagiarism is to present someone else's research plan, manuscript, article or text, or parts thereof, as one's own.

Misappropriation means that a researcher illicitly presents or uses in his/her own name an original research idea, plan or finding disclosed to him/her in confidence.”

2.2 The role of different institutions

Researchers in charge of projects funded by the Academy, tenured researchers employed by the Academy and the organisations conducting the research shall apply the procedures set out in these guidelines when there are grounds for suspecting or when notification is received of an instance of misconduct or fraud in science.

In keeping with the guidelines of the National Advisory Board on Research Ethics, the factors most relevant to legal protection in the process are:

*“fairness and impartiality,
the hearing of all parties concerned, and
a speedy process.”*

Responsibility for handling alleged violations of good scientific practice rests with the organisation conducting the research. In line with the guidelines of the National Advisory Board on Research Ethics, the procedure entails that every phase of the process is carefully documented and that the right to information of the parties concerned is respected.

The decision on opening an inquiry or investigation proper shall be made by the organisation conducting the research. The organisation shall inform the Academy of its decision in writing.

During the inquiry and the investigation the director of the organisation concerned must safeguard the legal protection of both the complainant and the suspected perpetrator and in general ensure that the matter is handled appropriately. The actual implementation of the inquiry and the investigation proper is also the responsibility of the management of the research organisation.

Steps must be taken to guarantee a flexible process at all stages. If the researcher suspected of misconduct or fraud in science has worked in many different research communities, consideration of the allegation will require cooperation between these research organisations.

2.3 Procedure

As well as following the guidelines issued by the National Advisory Board on Research Ethics, the inquiry procedure must comply with legislation concerning administrative procedures and access to official documents. The procedure must also ensure impartiality and sufficient expertise, and in general pay attention to the legal protection of the parties involved at all stages. Requirements of confidentiality must also be taken into account.

The Academy must be informed in writing of the decision to terminate the investigation. The final report of the investigation complete with justifications must also be made available to the Academy.

If the suspect is a tenured researcher employed by the Academy, the panel conducting the investigation must include a representative appointed by the Academy.

3 Consequences

3.1 Tenured Academy researchers

Academy researchers are appointed for a tenure of no more than five years. Appointments to the post of Academy Professor can also be made on an until-further-notice basis. Vacant posts of Academy Research Fellow and Academy Professor are filled once a year.

The ground rule is that persons who have committed serious violations of good scientific practice will not be considered for appointments to Academy research posts. In each case the Academy will give separate consideration to how the **suspicion** of a violation of good scientific practice and **the severity of the alleged violation** affect the applicant's position with regard to the vacant post. The investigation may take a long time and the Academy cannot leave posts unfilled on account of an ongoing investigation, but the researcher may apply to Academy research posts in the following years.

If it is established that a tenured Academy researcher has been in breach of the principles of good scientific practice, the Academy will turn to criminal legislation as well as legislation on civil servants in deciding what further steps to take.

3.2 Projects funded by the Academy

In each case the Academy will give separate consideration to how the alleged violation of good scientific practice and the severity of the alleged act affect the applications filed by the suspect with the Academy. If the suspect is working as part of a research group, the Academy will consider whether the violation of good scientific practice by this group member will have to be taken into account in reviewing the group's application. In this case it will consider

- the interests of the whole research group and
- the suspect's position in the research group (researcher in charge, junior researcher, etc.).

In serious cases even the suspicion of a violation will be grounds enough to make the decision not to award funding. If the investigation concludes that the suspect has been in breach of good scientific practice, that will **always have a negative impact** on the Academy's deliberations on whether or not to award funding. As well as considering the severity of the violation, the Academy will take into account the research group's current or forthcoming applications. Among the factors weighing in the balance are

- whether the violation was an instance of misconduct or fraud
- the severity of the violation

repetition of the violation

the extent of inappropriate conduct

whether the act is criminalized or whether the act constituted grounds for dismissal under labour legislation.

The Academy may also decide to impose a waiting period of up to five years. During this waiting period the person in breach of good scientific practice will not be granted funding because on grounds of the established violation there is reason to suspect that the research funded would not satisfy the requirements set for good scientific practice and the quality of research. Furthermore, the Academy may decide that during such a waiting period, the person who has committed a violation of good scientific practice may not serve in any expert positions under the Academy.

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