

**ANNUAL REPORT 2007**  
**THE DANISH COMMITTEES ON**  
**SCIENTIFIC DISHONESTY**

*Danish Agency for Science, Technology and Innovation*  
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# **PREFACE**

*By Poul Lodberg,  
High Court Judge,  
Chairman of DCSD*

The Danish Committees on Scientific Dishonesty (DCSD) herewith submit their Annual Report for 2007.

During 2007 a total of 13 cases were brought before DCSD. DCSD completed its consideration of 9 of the cases in 2007, 1 complaint was withdrawn and 3 cases had not been completed by the end of the year. The cases have been minuted in Chapter 1 of the Annual Report.

The Committee on Scientific Dishonesty for Research in Health and Medical Science (USF) considered 5 cases, the Committee on Scientific Dishonesty for Research in Natural, Technological and Production Science (UNTPF) considered 3 cases, and the Committee on Scientific Dishonesty for Research in Cultural and Social Science (UKSF) considered 5 cases.

Danish Executive Order No. 668 of 28 June 2005 on the Danish Committees on Scientific Dishonesty sets out which cases DCSD can consider<sup>1)</sup>. DCSD can consider cases raised by a party in the sense of the Danish Public Administration Act. To a limited degree DCSD can also consider cases not raised by a party if the case is of social interest or of importance to human or animal health, and there is a justified assumption of scientific dishonesty. The cases must relate to scientific products. DCSD cannot consider cases relating to the tenability or truth of scientific theories, or cases relating to the research quality of a scientific product. Cases brought before DCSD must be rejected insofar as they do not satisfy the conditions in the Executive Order.

DCSD had to dismiss 6 cases in 2007. The cases were dismissed for the following reasons: The complainant did not have the requisite party status and DCSD found no basis for taking up the case of its own accord; scientific products were not at the centre of the case; or there was no justified assumption of scientific dishonesty. Finally, some complaints submitted involved the tenability, truth or research quality of scientific theories, which DCSD does not have the authority to judge.

Two of the cases DCSD considered in 2007 were submitted by parties wishing to have their names cleared of allegations of scientific dishonesty<sup>2)</sup>.

In a single case the complaint was withdrawn by the complainant<sup>3)</sup>. DCSD asked the complainant to give more detailed reasons for its withdrawal. DCSD did not find that social causes could warrant continued consideration of the case. Nor, furthermore, did DCSD find that the case had any bearing on animal or human health; the case was therefore shelved.

No basis was found for declaring dishonesty, as defined in Section 2 of the Danish Executive Order on DCSD, in those cases whose consideration was completed by DCSD in 2007.

The Annual Report contains two articles. One, "New guidelines in good scientific practice", has been written by Dr Ole Haagen Nielsen, MD, consultant, Herlev Hospital, Professor Mogens N. Pedersen, Department of Political Science and Public Management, University of Southern Denmark, and Dr Nils Axelsen, MD, consultant, National Serum Institute. The other, "Research Integrity in Europe: Institutions and their Approaches", has been written by Dr Alexis-Michel Mugabushaka, Science Officer, Corporate Science Policy, European Science Foundation.

I thank the contributors and DCSD's members, alternates and secretariat for their excellent collaboration in 2007.



**Poul Lodberg**  
High Court Judge  
Chairman of DCSD

- 1) *Danish Executive Order No. 668 of 28 June 2005 on the Danish Committees on Scientific Dishonesty has been reprinted as an appendix to the Annual Report.*
- 2) *Cases nos. 3 and 4.*
- 3) *Case no. 1.*



# **CASES**

## **CONSIDERED IN 2007**

*By Cecilie Dickmeiss,  
Secretariat of DCSD*

## CASES CONSIDERED IN 2007

### *Completed cases in 2007*

*All completed cases have been considered in accordance with Danish Executive Order No. 668 of 28 June 2005 on the Danish Committees on Scientific Dishonesty*

#### **Case no. 1**

**1** In March 2006 the Danish Committees on Scientific Dishonesty (DCSD) received a complaint from a professor, complaining that an employee had substituted fictitious data for data during his work at a laboratory. The case was considered on the Committee on Scientific Dishonesty for Research in Natural, Technological and Production Science (UNTPF).

In September 2007 the complainant suddenly retracted his complaint. In accordance with Danish Executive Order No. 668 of 28 June 2005, Section 4, subs. 2, DCSD can take up cases of its own accord to a limited extent if the case is of social interest or of importance to human or animal health, and where there is justified assumption of scientific dishonesty.

Full information about the case had been provided. On the basis available, UNTPF did not find that continued consideration of the case could be justified by social interests, nor did UNTPF consider the case to have any bearing on human or animal health. The request for withdrawal was therefore taken under advisement and the case shelved.

#### **Case no. 2**

**2** In March 2006, on behalf of a company, a named person contacted DCSD with a complaint, which included three independent, interconnected complaints. The complaints took issue with three different articles describing a particular medicinal product:

1) It was the complainant's view that two researchers had acted in a scientifically dishonest way in formulating a conclusion to an article which the two researchers had published in a specialist journal. The article concluded that the drug, which had been in common use, caused a particular type of damage that can occur in connection with a particular type of treatment.

DCSD found that the article was a scientific product, and therefore covered by DCSD's authority. In DCSD's view, the documentation presented in the article did not support the scientific conclusion drawn. However, the data used as a basis were clearly set out, and DCSD therefore found no evidence of wilfully or grossly negligent, uninformed, one-sided or distorted interpretation of the authors' own results or conclusions in accordance with Section 2, subs. 1, item 4 of the Executive Order.

2) The complainant further asserted that a researcher, in his capacity of chairman of a Danish association, had, in the complainant's opinion, acted in a scientifically dishonest way by having concluded in an annual report that the drug was toxic and use of the drug should be avoided in connection with a particular therapy that was detailed.

3) The complainant further asserted that, in the complainant's opinion, the same researcher had acted in a scientifically dishonest way by concluding in an article in an issue of an association magazine that a particular type of damage that can occur in connection with a particular type of treatment was perceived as being contingent on the drug specifically referred to.

On the latter two counts, DCSD did not feel that the conclusions in the annual report or the article in the association magazine could be regarded as scientific products. The Committee thus found that the publications were not under DCSD's jurisdiction, cf. Section 1, subs. 4 of the Executive Order. In this context DCSD had stressed that both the annual report and the article referred to a scientific product.

**3** In June 2006 DCSD was approached by a researcher who wished to be cleared of allegations of scientific dishonesty which an adjudication committee had put forward in connection with its assessment of his PhD thesis. The case was considered on the Committee on Scientific Dishonesty for Research in Cultural and Social Science (UKSF).

**Case no. 3**

The adjudication committee had deemed that there had been plagiarism from an article specified. The chairman of the adjudication committee stated that there was greater textual overlap between the thesis and an appendix to the article than there was with the actual article.

According to Danish Executive Order No. 668 of 28 June 2005 on the Danish Committees on Scientific Dishonesty, Section 2, scientific dishonesty is understood to mean intentional or grossly negligent conduct in the form of falsification, plagiarism, concealment, non-disclosure or suchlike, bringing about undue misrepresentation of one's own scientific efforts and/or scientific results.

There was consensus on UKSF that the researcher, as adduced by the adjudication committee, had been guilty of plagiarism. UKSF based its argument on the fact that the plagiarism had taken place from the appendix to the article, which as such could be viewed as unacceptable. However, it was UKSF's opinion that the plagiarism concerned the descriptive sections in the researcher's thesis. With this in mind, in particular, UKSF did not think that the nature of the plagiarism was such that it could be said with the necessary certainty to have brought about undue misrepresentation about the researcher's own scientific efforts. UKSF therefore found no basis for upholding scientific dishonesty.

**Case no. 4**

**4** In September 2006 a professor contacted DCSD, as he wished to be cleared of allegations of scientific dishonesty put forward in an official report from a dean to a vice-chancellor at the university where the professor was employed.

In the official report submitted to the vice-chancellor the professor was accused on a number of critical counts of having displayed grossly negligent conduct in such a way as to bring about undue misrepresentation of his own scientific efforts and results. The report was based on a report from the expert committee at the university.

The case was considered on the Committee on Scientific Dishonesty for Research in Cultural and Social Science (UKSF). In the premisses laid down for considering the case, it was emphasized that DCSD is not the appeal agency for the university.

The ruling outlines the bare bones of the personnel-related case. The factors that gave rise to criticism of the professor were as follows:

- 1) Criticism of the *methods used*, including statistical methods of computation.
- 2) Criticism of the professor's *treatment of data*. For a long period there was uncertainty as to exactly which data sets had been used as the basis for particular calculations and the ensuing conclusions. Concrete errors and shortcomings were highlighted both in the material and in the professor's account of, inter alia, the extent of the drop-out rate for trial subjects.
- 3) Criticism of the fact that, when publishing his results, the professor *did not make the computational basis available in such a way that the results could be verified*, and that on a number of occasions he failed to comply with calls to present this in full.

**Re point 1** (criticism of methods used)

The criticism concerned the use of a particular statistical formula, which the expert committee in the report did not consider able to justify one of the professor's central conclusions. In scientific circles, what can and cannot be concluded on the basis of factor analyses under different conditions is a general issue.

In its ruling DCSD does stress that a critical expert review of statistical methods in any major empirical project will, with some probability, give rise to discussion, without automatically raising issues of scientific dishonesty.

- The point of the criticism was not dishonesty, then, but the quality of the scientific work, which DCSD is unable to enter into.

**Re point 2** (criticism of data management)

In the expert committee's report the professor was criticized for the fact that errors could be detected in his treatment of data, and that in his publications he had not accounted for the data used in some immediately accessible way that enabled the analyses performed to be replicated.

DCSD considered that this negligence could be regarded as dishonest if it was deliberate or grossly negligent and brought about undue misrepresentation of his own scientific efforts and/or scientific results. From the expert committee's report, however, it emerged that the errors committed could not decisively change the conclusions that data in the professor's conclusions were able to justify – that is, taking the scientific and methodological premisses which the professor was known for using as a basis.

DCSD found that the drop-out rate for trial subjects during the period over which the study ran was of potential relevance to the question of undue misrepresentation. The professor pointed out that withdrawal in longitudinal studies was a well-known problem. DCSD did not consider it sufficient, however, to justify the failure to discuss the fact.

- DCSD did not find the omission so grave as to warrant characterizing it as undue misrepresentation.

**Re point 3** (criticism of the lack of opportunity for verification)

DCSD highlighted the importance of being able to make both controversial and predictable results subject to verification with the least delay possible.

In evaluating whether, by not complying with the requirement concerning full presentation of the data stock, the professor had been guilty of gross negligence, with resultant misrepresentation, DCSD attached importance to the following:

- that the university failed to lay down precise requirements concerning presentation,
  - that there are no rules in Danish research about precise deadlines for submission of data,
  - that the professor's scientific viewpoint was well-known, and
  - that the questions that would be raised in connection with publication were not about misrepresentation but about whether the professor's scientific opponents would be able to find weaknesses in his scientific line of argument.
- DCSD therefore found that it was a question of scientific tenability/quality, but not one of dishonesty.

The professor was cleared of the dishonesty allegations, since evidence of undue misrepresentation about his own scientific efforts could not be established.

**Case no. 5**

**5** In October 2006 DCSD received an enquiry from a citizen, stating that a brochure published by a medical science association contained incorrect information about the therapeutic options available for a particular disorder. Since the complainant failed to meet the requirement in Section 4 of Danish Executive Order No. 668 of 28 June 2005 on the Danish Committees on Scientific Dishonesty concerning party status, he wished for DCSD to take on the case of its own accord. DCSD rejected the case on the grounds that the brochure in question was not a scientific product, and that DCSD did not have the authority to consider the case. Furthermore, DCSD did not consider that it had the authority to assess whether official recommendations concerning foods should be changed.

**Case no. 6**

**6** In January 2007 a person contacted DCSD because it was her opinion that a researcher had acted in a scientifically dishonest way, having made misleading use of statistical methods and distorted the interpretation of his own results and conclusions in a published article on the link between cancer and mobile telephony.

DCSD did not consider that the complainant had a sufficiently essential, direct, legal and individual interest in the case to be able to be regarded as a party in the sense of the Danish Public Administration Act. DCSD stressed that the case showed that the complainant had engaged in the debate over the potential danger of using mobile phones but, additionally, that the complainant could not be considered to have such a direct interest in the case as to result in party status being ascribable to her.

Nor did DCSD consider that it was able to take up the case of its own accord, as there was no justified supposition of scientific dishonesty. In its evaluation of the article DCSD stressed that it clearly set out the statistical information that formed the background to the conclusions.

In its rejection of the complaint DCSD further informed the complainant that DCSD cannot consider cases relating to the tenability or truth of scientific theories, or cases concerning the research quality of a scientific product.

**Case no. 7**

**7** In February 2007 a complainant approached DCSD, stating that two articles written by two named researchers were fraught with errors and compiled using censurable methods.

Since DCSD cannot deal with cases concerning the tenability or truth of scientific methods and cases concerning research quality, DCSD found that the case could only be rejected. DCSD did not find, moreover, that the grievance complained of came under the heading of scientific dishonesty, since in DCSD's view it had not been demonstrated that the defendants had displayed conduct that could be characterized as intentionally or grossly negligent misrepresentation. Instead, the case seemed to be indicative of professional disagreement, which DCSD is unable to verify.

**Case no. 8**

**8** In May 2007 three people contacted DCSD. In their enquiry, the group lodged a complaint against three authors of a report on the siting of a research centre, on the grounds of scientific dishonesty in the form of falsification, distortion and surreptitious discarding of undesirable results.

DCSD did not feel able to consider the case as the complaint did not relate to a scientific product in the sense of the DCSD Executive Order. DCSD is only authorized to deal with a complaint if the product addressed by the complaint is covered by the concept of "research". DCSD undertook a concrete evaluation of the report in order to decide whether it could be regarded as research. In its evaluation DCSD particularly stressed the following:

- The purpose and nature of the report. The introductory chapter to the report showed that it was a preliminary study of conditions governing the siting of the research centre in a particular place. It was based on a series of interviews with various stakeholders and specialist literature in the field.
- The report was a fact-finding account, complete with resultant recommendations.
- The report was the result of a consultancy assignment for a ministry.
- The report was not, in the defendant's own view, research.

Based on its assessment, DCSD had to reject the case. DCSD did not take a stance on whether the complainant group had party status in the sense of the Danish Public Administration Act.

**Case no. 9**

**9** In June 2007 DCSD received an enquiry from a researcher complaining about another researcher's use of data in an article from 1999 in a natural science journal, as he considered the data on which the defendant had based the article to be fabricated.

In 2003 DCSD had made a ruling in a similar case between the parties. DCSD did not find reason to resume the complaint raised in May 2007 for consideration. In its deliberations whether to consider the complaint, DCSD stressed the following:

- In its ruling from 2003 DCSD pronounced that the defendant had acted in a scientifically dishonest way, having, in 1998 at least partly manipulated data, stating that the results reproduced in an article by the defendant did not reproduce authentic measurements in essential respects.
- The circumstances complained of in June 2007 seemed to bear some relation to the same group of topics as the previous complaint.
- The complaint bore some relation to the older set of circumstances.
- More detailed consideration of the complaint would not be in reasonable proportion to the costs needing to be spent on elucidating the case.

DCSD did not take a stance on whether the complainant could be considered a party in the sense of the Danish Public Administration Act.

**Case no. 10**

**10** In August 2007 a person approached DCSD to report an expert council for scientific dishonesty. It was the complainant's opinion that the council's recommendations concerning a specifically detailed foodstuff did not tally with the international literature. Moreover, it was the view of the complainant that the council's recommendations concerning diet increased mortality considerably.

DCSD did not consider itself able to deal with the complaint. In its assessment of the complaint, DCSD stressed that the recommendations from the council could not be characterized as a scientific product. DCSD, furthermore, did not consider it within its jurisdiction to evaluate whether official recommendations concerning diet are detrimental to health or suchlike, since DCSD deals exclusively with cases of alleged scientific dishonesty in concrete scientific products.

**Case no. 11**

***Incomplete cases in 2007***

**11** In August 2006 a person complained to DCSD. In a journal a named person had published an article which, in the view of the complainant, had been copied from her dissertation. The complainant thought the defendant had not made reference to her dissertation and was making the contents of the article out to be his own.

The defendant stated that this was not a case of plagiarism, as the items of information he had used in the article had been sourced from practice in a specified field and, moreover, were to be found in other, familiar works. The defendant's view was thus that the information he had utilized was not the result of the complainant's independent research work in connection with her dissertation.

*The case had not been finalized by the end of 2007.*

**Case no. 12**

**12** In February 2007 a researcher submitted a complaint about another researcher at the institution at which they were both employed. It was the complainant's view that the defendant had acted in a scientifically dishonest way when working with the data processing on which a specified article was based.

*The case had not been finalized by the end of 2007.*

**Case no. 13**

**13** In April 2007 DCSD was approached by an association. In its approach the association lodged a complaint against a group of medical researchers. The backdrop to the complaint was that the research group, according to the complainant, had distorted the scientific message in two articles, in its construction and interpretation of the data stock which the research group had used as a basis for its conclusion to the articles.

*The case had not been finalized by the end of 2007.*

# **NEW GUIDELINES IN GOOD SCIENTIFIC PRACTICE**

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## **NEW GUIDELINES IN GOOD SCIENTIFIC PRACTICE**

In February 2008 the Danish Committees on Scientific Dishonesty (DCSD) decided to update the previous guidelines in "Good Scientific Practice" from 1998. The decision was made in light of the great developments that have taken place during the past ten years within the underlying legislation and in the view, now supported, that grey-zone phenomena largely undermine the credibility of research. To this must be added the ongoing changes to the Vancouver Rules and, not least, the fact that the number of PhD students is set to rise markedly in the years ahead, making increasing demands of research supervision and counselling.

On a number of occasions DCSD has had reason to discuss and take a position on the transition between good and less good scientific practice, and particularly on the difficult demarcation of borders between scientific dishonesty proper and poor practice. It is important for such deliberations to take place in the research environments, too, partly on the basis of codifying existing standards of good scientific practice.

During the past year, therefore, a number of members of DCSD and several other researchers have revised and updated the collection of guidelines, which collectively cover important areas within good scientific practice. The aim is to have Danish researchers view the guidelines as an aid to their work – with the overall objective of enhancing the quality of the research.

The guidelines, which have now been revised, stem predominantly from the medical science research community. The scientific working method varies somewhat across the scientific disciplines, however, depending on how fixed the paradigms are that are current within those disciplines, just as disagreement can prevail within the same discipline around standards of good and appropriate practice. Nowadays, therefore, it is scarcely possible to posit a sufficiently detailed, and hence operational set of standards with universal validity. Particularly within the arts and social sciences, a number of researchers may well take a sceptical view of parts of the guidelines. Nevertheless, it is our view that the bulk of the now revised guidelines will also be relevant outside those areas they are primarily intended to be valid for. This applies primarily to the guidelines on publishing, on contracting agreements in connection with the initiation of collective projects, the right and duty to store and use scientific data, and the Danish Personal Data Act and scientific projects.

The earliest guidelines on the formulation of trial protocols, data documentation and storage of data for basic, clinical and clinical/epidemiological research, respectively, first appeared in 1993. In 1998 the guidelines were expanded so as also to include agreements concerning the initiation of research projects, the right and duty to store and use research data, and supervision on

authorship. The latter section has now been radically revised and renamed "Supervision in publishing matters". In addition, two entirely new guidelines have been added: "Supervision of research in the mathematical subjects – including statistics" and "The Personal Data Act and scientific projects".

The new guidelines have been circulated for consultation among a wide range of research institutions. There has been general support for the principles set out in the guidelines, but there have also been suggestions for adjustments and clarifications, which have largely been incorporated into the next edition, due to be published in early 2009.

As previously, DCSD has also attached importance to revising and expanding the guidelines for preventive and legal rights reasons.

Since being founded, it has been evident that DCSD has had to work in an area with very few clearly expressed rules and limited legislation. In its stance on the cases that have been raised, therefore, DCSD has been forced to rely on standards which DCSD has taken to be generally accepted in the research world, and which it has not been possible to read explicitly.

DCSD has reason to believe that its rulings and basic value set – which have been published in annual reports, the specialist and daily press, and numerous conference and educational contexts – have been predominantly in keeping with the unwritten norms of the research community.

Nonetheless, DCSD has felt it only right and proper to update the written wording of the basic standards by which it operates. With the aid of clear formulations, the purpose has been to create clarity and visibility, as even within the most homogenous research culture there can be divergent opinions, which may be based on the lack of a clearly formulated point of departure for any discussion of such matters.

DCSD has now been functioning for more than fifteen years. Although the annual number of cases is limited, the committees have nevertheless gleaned immense experience with regard to which issues give rise to conflicts between researchers – and hence sometimes to suspicion and accusations of scientific dishonesty. In addition, it has become increasingly clear, particularly as a result of American studies, that good scientific practice (*responsible conduct of research*) has a staggeringly hard time getting rooted where it matters, namely in the individual research environments.

For many years now a grey zone of phenomena has been known to exist between uncriticizable exercise of research and scientific dishonesty, which undermines the credibility of research (departures from good scientific practice). Large-scale, well organized American studies have now shown that this grey zone is sensationally big, and of far greater significance for the credibility of research results than the very few cases of actual scientific dishonesty to have occurred and been discovered (1,2). There is no reason to assume that we in Europe, including Denmark, differ essentially from the USA in this field. Given the ever increasing social importance of research and

the increasing resources being allocated to research, OECD has raised a hue and cry. A movement has therefore been set in motion with the purpose of harmonizing the definitions of scientific dishonesty and good scientific practice at global level, and getting research institutions to implement such guidelines more actively.

Thus there are a number of reasons for updating the guidelines, although it is clear to DCSD that many Danish researchers and research groups do abide by good scientific practice and scarcely need written guidelines. At the same time, though, there are evidently researchers and research groups that can prevent grey-zone phenomena, and certainly also conflicts, from flourishing if they actively attempt to implement good scientific practice in their day-to-day work. Yet only very few, and certainly no novices to the world of research, will immediately be able to ad-lib their way through this field. The guidelines can thus be turned to useful account as a point of departure for discussions in individual research groups and will almost certainly be able to find applications in the formalized teaching of PhD students.

A number of researchers will presumably view the guidelines as stating the obvious in many respects, which is a consequence of DCSD voicing its views in accordance with principles on which there is consensus in the research community. However, DCSD has experience from a number of cases showing that the collective, implicit perception of reasonable practice is lost when conflict situations arise, accentuating the failure of such principles to take root in these environments. American studies show that this applies to a large fraction even of highly respected research environments, where work therefore has to be done on identifying causes and cushioning their effect, partly in people's own interest and partly to raise the quality of the research and strengthen public confidence in it generally. In the USA the Office of Research Integrity, in collaboration with the National Institute of Health (NIH), has instituted a unique research programme that is now beginning to yield particularly concrete and useful knowledge in the field (1,2,3).

DCSD, despite the existence of the Vancouver Rules, has nevertheless opted to publish a revised set of guidelines on publishing. This is due to the fact that, among researchers, there is no general agreement concerning the interpretation of the Vancouver Rules, for which reason amplification in this field has been considered apposite. In addition, there are a number of factors relating to authorship that are not mentioned in the Vancouver Rules but are included in DCSD's guidelines, e.g. on publication in media other than scientific journals or books.

Since a growing number of projects are multinational, it may become more difficult to comply fully with the Danish guidelines, because rules and standards can vary in different countries. However, it must be assumed that a considerable degree of international agreement prevails as to the more overarching and fundamental views, and that any differences presenting

themselves will do so chiefly in the details. But differences in the perception of detail can also lead to grey-zone actions, unnecessary collaborative issues and conflicts. It is important, therefore, that research groups with an international make-up realize beforehand what differences, if any, exist between the various countries. A joint review of the Danish guidelines, and concrete decisions about how to relate to any such differences, will be one simple procedure for pinpointing and preventing grey-zone phenomena and potential conflicts.

It would be appreciated if users of the guidelines in good scientific practice submit their proposals for improvements and corrections to DCSD's secretariat on an ongoing basis.

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# **RESEARCH INTEGRITY IN EUROPE: INSTITUTIONS AND THEIR APPROACHES**

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## 1. INTRODUCTION

# RESEARCH INTEGRITY IN EUROPE: INSTITUTIONS AND THEIR APPROACHES

Widely publicized in the general and scientific media, triggering debates on the trustfulness of scientific results and calling into question the existing mechanism to ensure that highest standards in research practice are met, the serious cases of research misconduct in the 1980's and 1990's arguably changed the approaches of research organisations to promote research integrity.

They brought about a consensus that all research organisations, in their diverse role, have their share of responsibility in promoting and safeguarding research integrity.

It is in this perspective, that the European Science Foundation published its Science Policy Briefing “*Good Scientific Practice in Research and Scholarship*” in December 2000.

The Briefing was primarily addressed to the ESF member organizations and called upon them to act – in their diverse role – as stewards of the integrity.

- *Academies/Learned societies* were asked to draw up codes of good scientific practice and – acting as the conscience of the research system – propose the most appropriate ways and procedures to handle allegations of research misconduct;
- *Research-funding agencies* were asked to promote good scientific practice by requiring the universities they fund to develop adequate policies to deal with research misconduct;
- *Research-performing organisations* were asked to issue clear, fair and robust guidelines for good scientific practice and put in place procedures to implement those guidelines and adequately investigate cases of alleged misconduct.

### The European Science Foundation

The European Science Foundation (ESF) is a platform of 78 research organisations in 30 European countries. Its members are major research funding agencies, research performing organisations and learned societies who created ESF in 1974 to foster collaboration between researchers and between research organisations in Europe. ESF produces authoritative strategies and visions in all research fields, develops and manages funding schemes on behalf of its Member Organisations and supports science policy initiatives to facilitate the development of coordinated policies and procedures among its members. In 2007, ESF co-organized the first World Conference on research integrity (ESF & ORI 2007).

<sup>1)</sup> *The views expressed are those of the author and do not necessarily reflect the views of ESF or its member organisations.*

The report “*Stewards of Integrity: Institutional Approaches to Promote and Safeguard Good Research Practice in Europe*” is based on a survey conducted in 32 European countries. They include all 27 EU member states and an additional group of countries in which ESF have member organizations: Croatia, Iceland, Norway, Switzerland and Turkey. The survey focused on the approaches of following types of institutions: academies, national funding agencies, large public research performing organisations, national committees with research integrity responsibilities and national research integrity offices. From those organizations, a variety of materials such as guidelines and codes of conduct for researchers or descriptions of mechanisms to report and investigate research misconduct were collected and analyzed.

In total replies from 24 countries (out of the 32 countries targeted) were received. Organisations from four countries (Hungary, Lithuania, Portugal and Spain) reported on-going initiatives to establish structures for research integrity in their national research systems. One country (Malta) provided information on the bio-ethics committees which lay outside the scope of the survey. Although the Belgian National Fund for Scientific Research (FNRS) provided relevant materials, they reached ESF office too late to be included in the overview.

The report therefore contains information on the mechanisms in 18 countries. For each country, a summary based on the material provided was drafted by ESF office and sent to the organisation concerned for checking, updating and validation.

Before reporting on the results of the survey in the next section, it should be noted that the report did not include approaches of other important actors in research systems.

- Although the universities play a central role both in promoting good research practice and in handling allegations on research integrity, they were not considered in this survey. Their crucial role especially in imparting the principles of good research practice to the next generation of researchers is not addressed in the report.
- Other organisations which have engaged long in fostering good research practice are publishers (COPE 1997) and the Scientific Societies (AAAS 2002). Their policies and activities are also not included in the report.

The frequency of incidences of research misconduct reinforced the view that explicit (i.e. written) and formalized principles of good research practice may help foster research integrity. The publication of such principles in form of codes of conduct, good practice standards, and sets of principles or just discussion papers is seen as important in at least four aspects: (1) they can provide clear references to researchers who might need guidance on accepted

## **PROMOTING GOOD RESEARCH PRACTICE**

norms and standards in their fields (e.g. what is the appropriate way to credit the contribution of a supervisor in a scientific paper?); (2) they can help pre-empt potential tensions in collaborative projects; (3) they can be referred to, in cases allegations of research misconduct are raised and – perhaps more importantly – ;(4) they can serve as basis for efforts to impart the next generations of researchers the relevant principles of good research practice in their fields.

The report shows that, in the 18 countries considered, mainly two types of organizations have taken up the challenges to define the principles of and develop guidelines for good research practice:

1. The academy of science and arts as is the case in Czech Republic, Estonia, Latvia, Poland and Switzerland. In the Netherlands the academy developed their guidelines in collaboration with the national funding body (NWO) and the association of the universities.
2. A national committee with research integrity responsibilities as is the case in four countries. The organisations are: the Committee for Ethics in Science and Higher Education (CESHE) in Croatia; The National Advisory Board on Research Ethics in Finland, The Committees on Research ethics in Norway and the Swedish Research Council's ethics committee.

The cases in which research funding organizations publish guidelines are the exception (German Research foundation and the Academy of Finland). In most cases, they request the institutions hosting the researchers they fund, to have explicit standards of good research practice.

## **SAFEGUARDING RESEARCH INTEGRITY**

The report shows two (rather complementary) mechanisms to address allegations of research misconduct:

1. The guidelines referred to above often include minimal elements that the investigation procedures of an allegation of research misconduct should contain. This approach requires the procedures to handle allegations to be put in place in the research institutions. It implicitly assumes that the responsibility to investigate the cases and if necessary impose sanctions lies with the research organizations in which the researchers are employed (generally the universities). Research funding agencies which request from the institutions they support explicit good research practice guidelines also request appropriate mechanisms to deal with allegations of research misconduct. (Health Research Board in Ireland, DFG in Germany, Academy of Finland and most UK research councils).

2. In 7 countries there are bodies which deal with the allegations of research misconduct at a national level. The Croatian Committee for Ethics and Higher Education (CESHE), The Danish Committees on Scientific Dishonesty, The German Office of DFG-Ombudsperson, The National Board of Scientific Integrity in Netherlands, The National Commission for the Investigation of scientific misconduct in Norway, the Committee on Ethics in Poland and the Expert Group for the investigation of suspected research misconduct in Sweden. At the time the report was being compiled, a national research integrity office was being proposed in Austria. It should be noted that their authority and modus operandi vary considerably.

The objectives of the ESF report were to identify, in national research systems, the institutions with a key role in promoting and safeguarding research integrity on one hand, and to document their policies and approaches on the other hand. The report includes summaries from 18 countries from which information on those two aspects could be collected.

The information in the report will be used in ESF efforts to facilitate dialogue on the development of coordinated policies and approaches on research Integrity in Europe and beyond. In August 2008 ESF will launch a Forum on Research Integrity involving its member organisations and other relevant institutions. The Forum will serve as a platform to continue the dialogue on how to cooperate on promoting good research practice. It will also support and encourage organisations which do not yet have appropriate structures (but are interested in developing them) to learn from experiences of others, and to initiate debates in their respective communities on adequate models with the view of establishing them. The Forum will also provide input to the preparation of the second World Conference on Research Integrity, which will be held in 2010 in Singapore.

## **CONCLUSION AND OUTLOOK**

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## **Appendix**

Overview of Approaches in 18 countries.

## APPENDIX

Country	Codes/guidelines	Investigating allegations of research misconduct
1. Austria	The Austrian Science Fund (FWF) requests researchers to comply with the recommendations “Safeguarding Good Scientific Practice” of the German Research Foundation (DFG)	Most universities have established an Ombudsman (since 2003). At the time the report was being published, a national research integrity office was being established
2. Croatia	The Committee for Ethics in Science and Higher Education (CESHE) has published in 2006 an ethics code and guidelines for responsible conduct of research in grant proposal	The Committee for Ethics in Science and Higher Education (CESHE) , established in 2006, is responsible, among others, with the examination of cases of alleged research misconduct
3. Czech Republic	The Academy of Sciences of the Czech Republic has adopted in 2006 a “Code of Ethics for Researchers of the Academy of Science of the Czech Republic”	
4. Denmark		The allegations of research misconduct are dealt with by the three Danish Committees on Scientific Dishonesty (DCSD), which was established in 1999
5. Estonia	The Estonian Academy of Science published in 2002 a Code of Ethics for Estonian Scientists	

### OVERVIEW OF APPROACHES IN 18 COUNTRIES

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6. Finland	The National Advisory Board on Research ethics, established in 1991, published the “Good Scientific Practice and Procedures for Handling Misconduct and Fraud in Science” (first edition in 1994, current edition in 2002); The Academy of Finland has since 2005 Guidelines on Research Ethics that all applicants should follow	The guidelines of the National Advisory Board on Research Ethics and of the Academy of Finland request the universities and other research performing organisations to set up appropriate mechanisms to deal with allegations of scientific misconduct
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7. France	The French Institute for Development Research published in 2005 guidelines for good scientific practice in research for development	The French National Institute for Health and Medical Research (INSERM) has dedicated research integrity delegation established in 1999 which make preliminary inquiries of suspected cases of research misconduct; in other research institutions such as CNRS the allegations are investigated by ad Hoc Committees
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8. Germany	The German Research Foundation (DFG) makes since 1998 compliance to its “Recommendations for Safeguarding Good Scientific Practice” a pre-condition for awarding grants. Max Planck Society (1997 with major update in 2000) and Leibniz association (1999) have also issued rules of Good Scientific Practice	The office of Ombudspersons advises and assists scientists in questions of good research practice. The cases involving DFG funding are handled by the DFG Committee of Inquiry on Allegations of Scientific misconduct. At the Max Planck Society, the responsibility to conduct preliminary inquiries lies with the Director of the institute concerned, the formal investigation is conducted by an investigative committee, membership of which is specified in the “Rules of procedures in Cases of suspected scientific misconduct”
9. Ireland	The Health Research Board requests, since 2002, the institutions hosting researchers it funds to have standards of good research practice (HRB Guidelines for Host Institutions on Good Research practices)	The Health Research Board Guidelines for Host Institutions of the handling of research misconduct requests the organisations receiving HRB funds to have formal written procedure for the investigation of allegations of scientific fraud
10. Latvia	The Latvian Academy of Science issued in 1997 a “Scientist’s Code of Ethics”	

11. Netherlands	The Royal Netherlands Academy of Arts and Sciences (KNAW), the Netherlands Organisation for Scientific Research (NWO) and the Association of Universities in the Netherlands (VSNU) published in 2001 the Scientific Integrity Memorandum to promote the application of high standards of scientific conduct	The memorandum states that investigation of alleged cases of scientific misconduct lies with the institution concerned. The National Board for Scientific Integrity (LOWI), set up in 2003, acts as second instance appeal and can be called in by any party which feels a specific case was not dealt with appropriately
12. Norway	The three National Ethics Committees on Research Ethics established in 1990ies issued guidelines for research ethics in their respective disciplines (Medicine; Science and Technology; Social Sciences and Humanities)	Serious research misconduct cases are handled by the National Commission for the Investigation of Scientific Misconduct which started its work in 2007
13. Poland	The Polish Academy of Sciences published “Good Manners in Science: A set of principles and guidelines”; The Committee on Ethics in Science has also published Good Research Practice as guidelines to promote good research practice (published in 1994 and updated in 2001)	The Committee on Ethics in Science handles allegation of suspected research misconduct

14. Slovakia	The Slovak Research and Development Agency (SRDA) requests research it funds to follow the “Good Research Practice: recommendations of the Council of the Slovak Research and Development Agency” (published in 2004)	The cases of research misconduct (involving grants from the SRDA) are investigated by the Ethics committee
15. Sweden	The Swedish Research Council’s ethics Committee published in 2005 the “Good Research Practice - what it is?” Views, Guidelines and Examples”	In 2003, the Swedish Research Council set up a standing Expert Group for investigation of suspected research misconduct. In 2007, the Swedish Research Council and the Association of Swedish Higher Education proposed to the government to set up an independent body for research misconduct related issues
16. Switzerland	The Swiss Academies of Arts and Sciences published in 2008 “Integrity in scientific research: principles and procedures” to remind the researchers and research institutions of their responsibilities with regards to research integrity; The Swiss National Science Foundation issued in 2005 a statement on scientific misconduct targeting the research funds	A law amendment of February 2008 empowers the funding institutions to investigate research misconduct and impose appropriate sanctions

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17.  
Turkey

The Scientific and Technological Research Council of Turkey (TÜBİTAK) adopted in 2003 ethical principles related to research it funds and publication in its scientific journals

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18.  
United Kingdom

All research councils in UK have defined (since the 1990ies), as part of their funding guidelines, standards of good research practice, which they expect researchers and institutions they fund to comply with. There is also a UK panel for Research Integrity in Health and Biomedical Sciences whose role is to promote the good research practice in biomedical research and health related disciplines. The Panel is supported by the UK Research Integrity Office

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## **APPENDICES**

*Extracts from the Danish Act on the Research Advisory System etc.  
(Act No. 658 of 19 June 2007)*

*Executive Order on the Danish Committees on Scientific Dishonesty  
(No. 668 of 28 June 2005)*

*Rules of Procedure for the Danish Committees on Scientific Dishonesty*

*Members and alternates of the Danish Committees on Scientific  
Dishonesty*

# EXTRACTS FROM DANISH ACT NO. 658 OF 19 JUNE 2007 ON THE RESEARCH ADVISORY SYSTEM ETC.

## Part 1

### *Scope of the Act*

**Section 1.** To strengthen the quality, coordination and internationalization of Danish research and the dissemination and application of research results, the Minister for Science, Technology and Innovation establishes the Danish Council for Research Policy, the Danish Councils for Independent Research, the Danish Council for Strategic Research and the Danish Research Coordination Committee.

Subs. 2. To ensure the scientific integrity of Danish research, the Minister for Science, Technology and Innovation establishes the Danish Committees on Scientific Dishonesty, cf. Section 31.

Subs. 3. The main purpose of the Danish Council for Research Policy shall be to provide independent, expert research policy advice to the Minister for Science, Technology and Innovation, the Danish Parliament and the Government. The Council shall have a purely advisory function, cf. Section 3.

Subs. 4. The Danish Councils for Independent Research shall have both a funding function and an advisory function. The main purpose of the Councils shall be to support specific research activities based on the initiatives of the researchers themselves, and to provide scientific research advice in this regard, cf. Sections 7 and 8.

Subs. 5. The Danish Council for Strategic Research shall have both a funding function and an advisory function. The main purpose of the Council shall be to support research within politically prioritized and thematically demarcated areas of research, and to provide scientific research advice in this regard, cf. Sections 17 and 18.

Subs. 6. The Danish Research Coordination Committee shall be responsible for coordinating the public funding function for research, and shall have an advisory function in relation to research training, cf. Sections 25 and 26.

Subs. 7. The Councils and the Committee mentioned in subs. 4-6 in combination shall ensure that all state research grants, with the exception of basic grants associated with particular institutions, are allocated in open competition following scientific assessment of their quality.

## Part 2

### *Definitions*

**Section 2.** For the purposes of this Act,

- 1) Recognized researchers shall mean: persons who have engaged in active scientific research for a number of years who are of at least associate professor or senior research fellow standard.

- 2) Research experts shall mean: persons at PhD level who possess either knowledge or experience of performing research tasks for a number of years at national or international level, or who have undertaken indepth research administration, research management, research dissemination or research policy work for an institution, organization or company at managerial level.

...

**Section 31.** The task of the Danish Committees on Scientific Dishonesty is to consider cases involving complaints of scientific dishonesty.

Subs. 2. In the event of their ascertaining evidence of scientific dishonesty in a case, the Committees may:

- 1) Inform the Defendant's employer, if the party in question is employed as a researcher.
- 2) Recommend withdrawal of the scientific project concerned.
- 3) Inform the relevant public authority responsible for the area.
- 4) Make out a police report when a punishable offence is involved.
- 5) At the special request of an appointing authority, state their views on the degree of scientific dishonesty.

Subs. 3. The chairperson shall rule on legal issues, cf. Section 32, subs. 2.

Subs. 4. The Committees shall publish an annual report on their activities.

**Section 32.** The Danish Committees on Scientific Dishonesty shall consist of one or more committees covering all areas of scientific research.

Subs. 2. The chairperson of the Committees must be a high court judge.

Subs. 3. The Minister for Science, Technology and Innovation shall stipulate the number of members. Each member must additionally have a corresponding deputy. The members and deputies must all be recognized researchers, together covering all areas of scientific research, cf. Section 36, subs. 2.

Subs. 4. The chairperson shall be appointed by the Minister for Science, Technology and Innovation. The members and the deputies shall be appointed by the Minister in their personal capacities following a hearing conducted by the Danish Councils for Independent Research. The chairperson, the other members and the deputies shall be appointed for a period of four years. Reappointment may take place for a term of two years. If a member or deputy resigns in an untimely manner, a new member or new deputy may be appointed for a period of less than four years.

Subs. 5. The Committees shall draw up rules of procedure, which shall be subject to the approval of the Minister for Science, Technology and Innovation.

## **Part 7**

*The Danish Committees on  
Scientific Dishonesty*

**Section 33.** The Minister for Science, Technology and Innovation may lay down detailed rules governing the activities of the Danish Committees on Scientific Dishonesty.

**Section 34.** The decisions of the Danish Committees on Scientific Dishonesty may not be brought before any other administrative authority.

## **Part 8**

### *Miscellaneous provisions*

**Section 35.** Secretariat services for the Danish Council for Research Policy shall be provided by the Ministry of Science, Technology and Innovation

Subs. 2. Secretariat services for the Danish Councils for Independent Research, the Danish Council for Strategic Research, the Danish Research Coordination Committee and the Danish Committees on Scientific Dishonesty shall be provided by an independent secretariat.

Subs. 3. The Minister for Science, Technology and Innovation or such person as designated by the Minister for the purpose shall supervise the application and legality of grants in connection with the work of the Danish Councils for Independent Research, the Danish Council for Strategic Research and the Danish Research Coordination Committee.

...

**Section 40.** This Act shall be reviewed in the 2007-08 session of the Danish Parliament on the basis of an evaluation of the advice provided by the research advisory system concerning support for research training.

## **Part 9**

### *Coming into force etc*

**Section 41.** This Act shall come into force on 1 January 2004. At the same time, the Act on Research Policy Advice etc., cf. Consolidated Act No. 676 of 19 August 1997, shall be repealed.

Subs. 2. Rules determined in pursuance of the Act on Research Policy Advice etc., cf. Consolidated Act No. 676 of 19 August 1997, shall remain in force until repealed or replaced by rules issued in pursuance of this Act.

## **EXECUTIVE ORDER NO. 668 OF 28 JUNE 2005**

*Executive Order on the Danish Committees on Scientific Dishonesty. The following provisions are laid down pursuant to section 32(3) and section 33 of the Danish Act No. 405 of 28 May 2003 on Research Advice etc.:*

**1.**-(1) To strengthen the integrity of Danish research the Minister for Science, Technology and Innovation establishes the Committees on Scientific Dishonesty. The Committees may only consider cases of scientific dishonesty important to Danish research.

(2) The Committees shall consist of three committees, which combined cover all areas of scientific research::

- i) the Committee on Scientific Dishonesty for Research in Health and Medical Science;
- ii) the Committee on Scientific Dishonesty for Research in Natural, Technological and Production Science;
- iii) the Committee on Scientific Dishonesty for Research in Cultural and Social Science.

(3) The Committees shall jointly determine the remit of each of the three committees set out in subsection (2) hereof. The demarcation lines shall be specified in the rules of procedure, cf. section 16(1).

(4) The Committees may consider cases where the defendant has received scientific training within the area of research that the scientific product complained about concerns and who

- i) has had the scientific product complained about published in Denmark;
- ii) has prepared the scientific product complained about during his or her employment or commercial activity in Denmark;
- iii) has obtained or applied for a grant from Danish public authorities for the preparation of the scientific product complained about; or
- iv) otherwise has his or her closest connection to Denmark.

(5) As regards scientific products prepared under private auspices, any consideration of the case will require that the private business or the like wants to be covered by the Committees' remit or wants to assist in elucidating the case.

### **Part 1**

*Purpose, scope etc.*

## **Part 2**

### *Remit*

**2.**-(1) Scientific dishonesty shall mean intentional or grossly negligent conduct in the form of falsification, plagiarism, non-disclosure or any similar conduct involving undue misrepresentation of a person's own scientific work and/or scientific results. Included hereunder are:

- i) undisclosed fabrication and construction of data or substitution with fictitious data;
- ii) undisclosed selective or surreptitious discarding of a person's own undesired results;
- iii) undisclosed unusual and misleading use of statistical methods;
- iv) undisclosed biased or distorted interpretation of a person's own results and conclusions;
- v) plagiarism of other persons' results or publications;
- vi) a false credit given to the author or authors, misrepresentation of title or workplace;
- vii) submission of incorrect information about scientific qualifications.

**3.** The Committees shall not be entitled to consider cases involving the validity or truth of scientific theories or cases involving the research quality of a scientific product.

## **Part 3**

### *Acceptance of cases for consideration*

**4.**-(1) The Committees on Scientific Dishonesty shall consider cases brought by a party alleging scientific dishonesty under the Danish Public Administration Act, cf., however, subsection (3). The Committees may also consider cases brought by a party wanting to be cleared of named, anonymous or source-protected allegations of scientific dishonesty provided that the party provides all the necessary information for use in the Committees' consideration of the case, cf. section 12(3).

(2) The Committees may, to a limited extent, consider cases not brought by a party if the cases are of interest to society or of importance to human or animal health and where there is a reasoned assumption of scientific dishonesty.

(3) The Committees may refuse to consider cases where it is found beforehand that:

- i) the case is outside the scope of the remit of the Committees;
- ii) the case must be considered manifestly unfounded;
- iii) the costs of considering the case are out of proportion to its importance.

(4) Cases which are not accepted for consideration by the Committees shall be dismissed not later than three months after the Committees' receipt of the case. In cases accepted for consideration, the Committees shall not later than three months after receipt of the case notify the parties to the case of the expected phases of the case and when a statement is expected to be made, cf. section 13(1).

**5.**-(1) The Committees on Scientific Dishonesty may consider cases involving complaints about individuals or groups of individuals.

(2) In cases involving complaints about groups of individuals, however, the Committees may only use their authority to employ sanctions, cf. section 15(1), if the clarification of the case leads to clarification of who is responsible for the conduct under section 2.

**6.**-(1) The Committees on Scientific Dishonesty may consider cases involving complaints about a written scientific product after the defendant's voluntary handing over thereof, cf. section 1(4).

(2) The Committees may also consider cases involving complaints about an application filed with a view to applying for a grant from public research funds.

**7.**-(1) The Committees on Scientific Dishonesty shall have a common chairperson, who shall be a high court judge.

(2) In addition to the chairperson, each Committee shall, in accordance with subsection (1) hereof, consist of six members and the same number of alternates who may only deputise on any member's absence and only for the full consideration of a case. The members shall all be recognised researchers, who between them cover all areas of scientific research. The same shall apply to the alternates.

(3) The chairperson shall be appointed by the Minister for Science, Technology and Innovation. The members and the alternates shall be appointed by the Minister in their personal capacities following a hearing conducted by the Danish Councils for Independent Research. The chairperson, the members and the alternates shall be appointed for a period of four years and shall be eligible for reappointment for a period of no more than two years. If a member or an alternate resigns in an untimely manner, a new member or a new alternate may be appointed for a period of less than four years.

#### **Part 4** *Structure*

## **Part 5**

*Distribution of cases,  
presence of a quorum and  
voting*

**8.**-(1) The chairperson shall distribute cases for consideration by the three committees, cf. section 1(2).

(2) The individual committees shall decide whether a case is to be accepted for consideration or be dismissed beforehand, cf. section 4(3) and (4).

(3) Where a case is found to concern the remit of more than one committee, the committee to which the scientific product complained about primarily relates may decide that the Committees shall make a joint decision on the case, including making a statement, cf. section 6.

(4) Where the defendant is a group of individuals, cf. section 5(1), the decision under subsection (2) may be made by the committee, to which the scientific product complained about primarily relates. Where such committee cannot be determined, the decision shall be taken by the chairperson.

**9.**-(1) A committee shall form a quorum when the chairperson and four members or an equivalent number of alternates are present, cf. section 7(2).

(2) In cases where several committees make a joint decision, cf. section 8(2), such committees shall only form a quorum if each committee independently meets the requirement set out in subsection (1) hereof.

(3) The Committees shall, to the greatest possible extent, make a unanimous decision. If agreement cannot be reached, any decision shall be passed by an ordinary majority of votes.

(4) The chairperson shall resolve all legal questions and the formulation of a conclusion.

## **Part 6**

*Consideration of cases*

**10.** The parties to a case being considered by the Danish Committees on Scientific Dishonesty shall be entitled to be assisted by assessors.

**11.**-(1) The Committees on Scientific Dishonesty may establish ad hoc committees without any decision-making authority to assist with the preparation of a case. An ad hoc committee may be composed of some of the Committees' members, their alternates and/or external experts appointed by the Committees after an independent hearing of the parties on the contemplated composition has taken place.

(2) In connection with the preparation of the case, cf. subsection (1) hereof, the ad hoc committees shall prepare a report on the facts of the case. Where external experts have been appointed to the ad hoc committees, an independent hearing of the parties to the case shall be undertaken with respect to the report.

(3) Secretariat services for ad hoc committees shall be provided by the Committees' secretariat in accordance with section 35(2) of the Act.

**12.**-(1) In connection with the consideration of the case, the Committees on Scientific Dishonesty shall obtain all necessary information in order to be able to make a sufficiently well-informed decision.

(2) For the purpose of elucidating the case, the Committees may obtain information from the defendant on the scientific method used in preparing the scientific product complained about, cf. section 6(1), if such information is not already available to the Committees.

(3) In cases brought by a party with a view to clearing such party, cf. section 4(1), the Committees shall obtain a report in writing from the party unless the Committees find the allegation of the party's scientific dishonesty to be manifestly unfounded.

(4) In cases in which complaints are made about groups of individuals, cf. section 5(2), the Committees may, for the purpose of clarifying the case, obtain information from the defendant about the individual members' contributions to the total scientific product, if such information is not already available to the Committees.

**13.**-(1) The Committees on Scientific Dishonesty shall conclude the consideration of a case by making a statement. The statement shall include:

- i) a statement of facts;
- ii) statements from the other parties to the case;
- iii) the Committees' deliberations;
- iv) the Committees' conclusion and, in the event of a dissent, cf. subsection (2), the number of members or their alternates who can accept the conclusion.

(2) In cases where the Committees make their decision by an ordinary majority of votes, cf. section 9(3), each dissenting member or his or her alternate may demand that his or her dissent be mentioned in the statement.

(3) In cases where the Committees expect to criticise the defendant's conduct, cf. section 15, the Committees shall submit a draft statement to such person for hearing.

**14.** The Committees on Scientific Dishonesty may, at the request of a party, resume a case that has been closed if new information is received which, if it had been available during the consideration of the case, might probably have led to a different outcome.

## **Part 7**

*Conclusion and possible resumption of cases*

## **Part 8**

### *Sanctions*

**15.**-(1) In cases where scientific dishonesty is ascertained by the Committees on Scientific Dishonesty, the Committees shall make a statement expressing criticism. At the same time, the Committees may:

- i) inform the defendant's employer if the party in question is employed as a researcher;
- ii) recommend that the scientific project concerned be withdrawn;
- iii) inform the relevant public authority supervising the area;
- iv) make out a police report where a punishable offence is involved;
- v) at the special request of an employing authority, state their views on the degree of scientific dishonesty.

(2) In cases under subsection (1) hereof, the Committees shall state their views on the degree of scientific dishonesty ascertained and on its importance to the scientific message in the scientific product concerned.

(3) The Committees may shelve cases under subsection (1) hereof if the Committees find the scientific dishonesty ascertained only to be of little importance to the scientific message in the product.

## **Part 9**

### *Various provisions*

**16.**-(1) The Committees on Scientific Dishonesty shall draw up rules of procedure to be approved by the Minister for Science, Technology and Innovation.

(2) The Committees shall publish an annual report on their activities. The report shall describe all considered cases of scientific dishonesty in non-personalised form.

## **Part 10**

### *Coming into force etc.*

**17.** This Executive Order shall come into force on 1 August 2005. At the same time, Executive Order No. 933 of 15 December 1998 on the Committees on Scientific Dishonesty shall be repealed.

Danish Ministry of Science, Technology and Innovation  
28 June 2005

Helge Sander  
*/Thorkild Meedom*

# RULES OF PROCEDURE FOR THE DANISH COMMITTEES ON SCIENTIFIC DISHONESTY

The following is stipulated pursuant to Section 16, subs. 1 of Danish Executive Order No. 668 of 28 June 2005 concerning the Danish Committees on Scientific Dishonesty

**Section 1.** The Danish Committees on Scientific Dishonesty comprise three coordinated committees, jointly covering all fields of scientific research. The Committees have a joint chairperson.

## The Committees – missions and aims

The three committees are:

1. The Committee on Scientific Dishonesty for Research in Health and Medical Science (USF).
2. The Committee on Scientific Dishonesty for Research in Natural, Technological and Production Science (UNTPF).
3. The Committee on Scientific Dishonesty for Research in Cultural and Social Science (UKSF).

Subs. 2. The detailed demarcation between the three committees shall be determined thus:

USF shall consider cases concerning research within human health, including nutritional aspects. The Committee shall consider cases concerning all aspects of both basic scientific and clinical research, including the use of animal models, targeting people's health and human disease.

UNTPF shall consider cases concerning research aimed at basic scientific issues within natural science, computer science and mathematics. The Committee shall further consider cases concerning basic research within technology and production, where the point of departure is an application perspective aimed at solving problems or at new ways of meeting society's needs.

UKSF shall consider cases concerning research within the fields of the humanities and the social sciences. The Committee shall consider cases concerning research within all aspects of history and culture, cognitive disciplines, linguistics and philology, aesthetic disciplines as well as economics, political science, sociology and jurisprudence.

**Section 2.** The Danish Committees on Scientific Dishonesty are mandated to consider cases of scientific dishonesty of significance to Danish research, cf. Section 4, subs. 1 and 2 of the Executive Order.

Subs. 2. The Committees can consider general enquiries, provided that the issue involved is deemed to be of social interest, interest to a wider circle of researchers or to a research environment.

Subs. 3. The Committees shall play an instrumental part in promoting good scientific practice and preventing scientific dishonesty. It will be endeavoured to achieve this goal by disseminating a knowledge of the Committees' rulings and annual report, and by means of teaching and lecturing activities etc.

Subs. 4. At the joint annual meeting, cf. Section 18, the Committees shall discuss initiatives capable of furthering the Committees' cause.

### **Preparation of cases and settlement on individual committees**

**Section 3.** The chairperson shall decide which committee is to consider a particular case. In the event of any queries, the chairperson shall discuss the question with the Committees concerned.

Subs. 2. If a case concerns more than one committee's sphere of competence, the Committee to which the scientific product being complained of primarily belongs can decide that the Committees must make a ruling on the case collectively and issue a joint statement.

Subs. 3. If the Defendant is a group of individuals, in accordance with subs. 2, the ruling can be made by the Committee to which the scientific product being complained of primarily belongs. In the event of queries, the chairperson shall make the ruling.

**Section 4.** The Committees can decline to consider a case if it is deemed beforehand that:

1. The case falls outside the Committees' competence.
2. The complaint may be deemed manifestly baseless.
3. The costs of considering the case are not in reasonable proportion to its significance.

**Section 5.** Cases not taken up for consideration by the Committees shall be dismissed no later than three months after the Committees have received them. In cases accepted for consideration, the Committees shall inform the parties to the case of the anticipated progression and outcome of the case and the anticipated time for a ruling on the case no later than three months after receiving the case.

**Section 6.** If the case is accepted for consideration, it shall be incumbent on the pertinent committee to investigate the complaint and procure all necessary information in order to be able to make a decision on an adequately informed basis.

Subs. 2. Information provided by the parties shall form part of the Committees' investigation and consideration of the case. The parties shall be heard by presenting the opposing party's information and comments.

The hearing procedure shall consist, as a basis, of two written hearings between the Complainant and the Defendant; however, the scope of the hearing procedure shall be laid down in detail by the Committee following a concrete evaluation.

During the Committee's first hearing of the Defendant, his or her attention shall be drawn to the rules in Section 1, subs. 4 and 5 of the Executive Order.

Subs. 3. In cases where groups of individuals are being complained about, the Committee shall attempt to clarify each individual's contribution to the overall scientific product.

Subs. 4. In cases where a person wishes to be cleared of allegations of having committed scientific dishonesty, the Committee shall obtain a written account from the person in question unless it deems the allegation of scientific dishonesty adduced to be manifestly baseless.

As a prerequisite to considering the case, the Committee may otherwise request the person concerned to surrender all necessary information for use in considering the case. Following a concrete evaluation, the Committee shall decide whether a statement is to be obtained from any person or persons who have adduced allegations of scientific dishonesty.

**Section 7.** The Committee can appoint an ad hoc committee without decision-making authority whose brief is to investigate and prepare the case. An ad hoc committee shall be composed of some of the members of the Committee, their alternates and/or external experts. The parties to the case shall be informed of the ad hoc committee's composition and may produce any comments within a term of two weeks.

Subs. 2. As part of its preparations for the case, the ad hoc committee shall draw up a report on the actual circumstances of the case, which shall be submitted to the Committee. The Committee shall send the report to the parties to the case in order to ensure that any information of a factual nature in the report is correct.

The Committee shall subsequently send any comments the parties have to the ad hoc committee. The ad hoc committee's report, the parties' comments and the ad hoc committee's comments on it shall subsequently be sent to the Committee with a view to producing a ruling on the case.

Subs. 3. The Committees' secretariat shall provide secretariat services for the ad hoc committee.

Subs. 4. It shall otherwise be incumbent on the Committee, as part of its consideration of a case, to procure all necessary information in order to be able to make a decision on an adequately informed basis.

**Section 8.** If the Committee expects to express criticism on the grounds of any scientific dishonesty ascertained, the Committee shall listen to the Defendant's views on a draft of its statement. udtalelse.

**Section 9.** The Committee shall complete its consideration of a case by submitting a statement. Among other things, the statement shall account for:

1. Particulars of the case.
2. Statements from the parties to the case.
3. The Committee's deliberations.
4. The Committee's conclusion and, in the event of dissent, the number of members or alternates who have endorsed the conclusion, as well as any dissenting opinions, cf. Section 17, subs. 3.

**Section 10.** The Committee shall recommend to the parties that a case be dealt with in confidence until such time as a ruling is in place.

Subs. 2. Cases ruled on shall be discussed in the Committees' annual report in depersonalized form.

**Section 11.** The parties to the case may be assisted by advocates.

**Section 12.** Cases shall be decided at a meeting of the Committee, cf. however Section 13, subs. 3.

### **The chairperson's tasks and powers**

**Section 13.** One of the chairperson's tasks is to ensure uniformity of the casework procedure across the Committees.

Subs. 2. If a case will unquestionably have to be dismissed because it falls outside the Committees' competence or because the complaint is manifestly baseless, the chairperson can reject the case on his or her own initiative. The relevant committee shall be informed to this effect.

Subs. 3. The chairperson can determine that a case be resolved by means of a written vote if, taking into consideration the nature of the case, there is deemed to be no need for consideration at a meeting. At any time whatsoever, any member of the Committee can demand that the case be heard at a meeting.

Subs. 4. The chairperson may decide that the parties can be granted an audience with the Committee.

Subs. 5. The chairperson may decide that persons other than the Committees' members, alternates and secretariat are to take part in the joint annual meeting, cf. Section 18.

Subs. 6. The chairperson shall decide whether a request for access to documents can be met. The chairperson can delegate authority to the secretariat.

**Section 14.** The chairperson shall make a ruling in legal questions and on the wording of a conclusion in cases ruled on.

**Section 15.** The Danish Research Agency provides secretariat services for the Committees. The secretariat takes part in committee and ad hoc committee meetings.

Subs. 2. On receiving a complaint, the secretariat acknowledges it by providing particulars of the anticipated case-handling procedure. Wherever possible, the Defendant shall be informed of the complaint within ten days of the complaint being received.

Subs. 3. As soon as possible after receiving a complaint, the secretariat shall present the complaint to the chairperson, who shall decide whether ordinary consideration of the case is to be initiated with a view to treating the complaint on its own merits, or whether there may be a basis for dismissing the complaint out of hand.

Subs. 4. If ordinary consideration of the case is initiated, the secretariat shall send consultation replies and other case-related material to the chairperson on a regular basis. The secretariat shall notify all members and alternates of the complaint received.

Subs. 5. The secretariat shall otherwise assist the chairperson and the Committees in their work, as determined by the chairperson.

## **Acting as secretariat for the Committees**

**Section 16.** It shall be attempted to schedule meetings of the Committees giving at least four weeks' notice. For meetings of the Committees, an agenda with business material shall be sent out with ten days' notice, wherever possible.

## **Meetings of the Committees**

**Section 17.** A committee is quorate when the chairperson and four members or an equivalent number of alternates is present.

Subs. 2. In cases where several committees make a ruling jointly, cf. Section 3, subs. 2, the Committees shall only be quorate if each committee meets the requirement in subs. 1 independently.

Subs. 3. To the greatest extent possible, the Committees shall agree on the ruling they make. If agreement cannot be reached, a ruling shall be made by a simple majority. Any dissenting member or alternate can demand that his or her dissent be indicated in the statement.

**Section 18.** An annual joint meeting shall be held with the attendance of members of the Committees and their alternates. The meeting shall not be public. At the meeting the chairperson shall inform those present of the rulings made on the individual committees during the year. At the meeting a decision can be made on topics of joint interest to the Committees, cf. also in this respect Section 2, subs. 4.

**Section 19.** The Committees' chairperson shall chair the meetings.

Subs. 2. The Committees' meetings shall not be public.

**Section 20.** The secretariat shall minute the resolutions at meetings. The minutes shall be sent out for written approval among those in attendance.

### **Alternates**

**Section 21.** In the event of a member's absence or disqualification, the chairperson shall designate an alternate, who shall deputize for the duration of the consideration of the case.

Subs. 2. When appointing alternates, it shall be endeavoured to have the Committee provide specialist coverage of the area of scientific research in question, wherever possible.

### **Ensuring the continuity of the Committees' work**

**Section 22.** Once a committee has completed its consideration of a case, the secretariat shall send a copy of the ruling to all members and alternates on all three committees.

### **Commencement**

**Section 23.** These rules of procedure shall enter into effect on 15 October 2006.

The Danish Committees on Scientific Dishonesty,  
14 October 2006

Henrik Waaben / Annette D.N. Rasmussen

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2) *From September 2007*

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Danish Committees on Scientific Dishonesty

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