RESPONSIBLE RESEARCH PRACTICE AT AARHUS UNIVERSITY

AARHUS UNIVERSITY

Preface

Aarhus University's aspiration is for all of the university's research activities to have the highest possible quality and credibility, with respect for freedom of research and a research climate of lively, open and critical academic discussion within and across different fields of research and research traditions. This is why Aarhus University has a policy for the responsible conduct of research and subscribes to the Danish Code of Conduct for Research Integrity[1], which is based on a number of international declarations and principles for research integrity and responsible research practice.[2] The policy means that Aarhus University:

- Has clear standards for responsible conduct of research.
- Offers instruction in responsible conduct of research.
- Offers advice and guidance on responsible conduct of research.
- has clear rules and procedures for the university's handling of suspicions of research misconduct and other breaches of responsible conduct of research.

It is Aarhus University's clear objective for the policy to embrace all fields of inquiry and for everyone at the university to have a common understanding of what constitutes responsible conduct of research, including what is defined as scientific dishonesty. Everyone contributing to research at Aarhus University is expected to integrate these principles into their daily activities as a matter of course. In addition, other national legislation and reporting obligations must be complied with.

1. Principles

Everyone contributing to research at Aarhus University must act in accordance with the basic principles that form the foundation for all research. These principles include honesty, responsibility, trustworthiness, objectivity, impartiality, fairness, openness and responsible handling of the resources entrusted to them.

Aarhus University subscribes to the concept of misconduct that derives from section 2 of Ministerial Order no. 306 of 24 April 2009 on the Danish committees on scientific dishonesty and legal practice in this area.

2. Standards for responsible conduct of research

Clear standards for responsible conduct of research at Aarhus University are intended to help the individual researchers and research groups initiate, execute and complete research projects in a transparent and credible manner. Aarhus University follows the Danish Code of Conduct for Research Integrity, which contains common standards for responsible conduct of research within the individual steps of the research process: 1) Research planning and conduct, 2) Data management, 3) Publication and communication, 4) Authorship, 5) Collaborative research and 6) Conflicts of interest.

2.1 Research planning and conduct

Responsible planning and conduct of research contributes to transparent and credible research within all fields.

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[1] Danish Code of Conduct for Research Integrity, Ministry of Higher Education and Science, November, 2014
[2] 1.The European Code of Conduct for Research Integrity, European Science Foundation & All European Academies (ESF, ALLEA). 2.Singapore Statement on Research Integrity. 3.Montreal Statement on Research Integrity in Cross-boundary Research Collaborations.
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At Aarhus University, the individual researcher or research group is obliged to account for the design and execution of the planned research in a research strategy, plan or protocol in accordance with current practice within the discipline in question.

Aarhus University is responsible for ensuring that rules exist for all fields of inquiry for handling of research plans and protocols and amendments to these as well as procedures for application for any required approvals and permissions for research activities.

All reporting obligations related to cooperation agreements and contracts with external partners must be approved by the Technology Transfer Office (TTO).

2.2. Data management

Responsible handling and storage of research data contribute to transparent and credible research within all fields of inquiry.

For research carried out at Aarhus University:

- As a general rule, all primary material and data derived from from research conducted at Aarhus University must be stored at Aarhus University, which makes servers, archives etc. are available.
- All protocols, plans and strategies for experiments/studies, notes, laboratory books, data and primary material must be stored for five years after the completion of the research project, and, unless this is in conflict with other regulations or professional standards, and that there must be open access to the material, unless this is conflict with other regulations.
- All primary research material and data derived from research conducted at Aarhus University belongs primarily to Aarhus University and can only be removed or used outside of Aarhus University subject to written agreement with a department head (Arts: head of school).
- Research data and other primary research material from Aarhus University must be disposed of in a safe and secure manner with due regard for any ethical considerations.

Aarhus University is responsible for ensuring that rules are laid down for all fields of inquiry on the storage and handling of data.

2.3 Publication and communication

Publication and other forms of communication are a prerequisite for enabling research results to be reviewed, evaluated and discussed. Such communication must be honest, transparent and accurate.

Anyone contributing to research activities at Aarhus University must fulfil his or their duty and responsibility under the Danish Code of Conduct for Research Integrity to openly and honestly communicate their research and research results by presenting and discussing data, research method and process as well as research results with fellow researchers and the general public.

Aarhus University is responsible for supporting researchers in this through education and training and by ensuring that people outside of the research environment understand and respect the special duty and responsibility of researchers.

2.4 Authorship

Authorship is of considerable academic, social and economic importance, as it plays a decisive role in the assessment of the individual researcher and his or her research. Correct attribution of authorship contributes to the credibility and transparency of research and is thus a central element in the development of responsible conduct of research.

At Aarhus University, attribution of authorship, co-authorship and responsibility must be based on the principles laid out in the Danish Code of Conduct for Research Integrity. This entails that authors must meet the following criteria:

1. Substantial contributions to the conception or design of the work, or the acquisition, analysis or interpretation of data, and
2. Drafting the work or revising it critically for important intellectual content; and
3. Final approval of the version to be published; and
4. Agreement to be accountable for all aspects of the work, ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Aarhus University expects everyone claiming authorship to also assume the responsibility this entails. As stated in the Danish Code of Conduct for Research Integrity, all authors are responsible for the content of the article. However, the responsibility of each author should be assessed in relation to their individual role in the research and in relation to their area of expertise, experience, seniority, supervisory role and other relevant factors. Thus, in some cases an author may have a greater responsibility than others for ensuring the integrity of the article or parts of the article.[3]

In case of doubt, all employees and students at Aarhus University can seeking advice on authorship and co-authorship from a responsible conduct of research adviser. Any disagreements on co-authorship will be settled by Aarhus University's Committee for Responsible Conduct of Research.

2.5 Collaborative research

Because research traditions differ across disciplines, sectors and national boundaries, it is important to establish a common understanding of the principles for responsible conduct of research as early as possible in a collaborative research project.

There must be a common understanding of principles, procedures, duties and responsibilities related to responsible conduct of research in a collaborative research project. International collaborative research projects can find inspiration in OECD's guidelines: *OECD Global Science Forum – Investigating Research Misconduct Allegations in International Collaborative Research Projects 1: A Practical Guide.*[4]

Collaboration agreements and contracts with external partners concerning right of disposal of data must as far as the legal aspects are concerned be approved by the Technology Transfer Office (TTO).

2.6 Conflicts of interest

Responsible conduct of research includes disclosure of all potential conflicts of interest. This is necessary in order to assess whether special interests (financial or otherwise) have the potential to compromise an evaluation or action performed in a professional capacity.

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[3] Danish Code of Conduct for Research Integrity, pp. 12-13.
[4] OECD Global Science Forum – Investigating Research Miconduct Allegations in International Collaborative Research Projects 1: A Practical Guide. OECD April 2009

All parties involved with research activities, whether as researchers or as assessors of the research of others, are expected to disclose any possible conflicts of interests as defined in the Danish Code of Conduct for Research Integrity.

2.7 Standards for responsible conduct of research at the faculties

Clarity regarding the framework of responsible conduct of research within the different disciplines will help researchers and research groups working across disciplines understand and relate to different research traditions.

Information about any research standards specific to particular fields of research will be made available.[5]

3. Research integrity teaching, training and supervision

It is fundamentally the university's and the researchers' joint responsibility to stimulate and develop critical scientific and scholarly discussion in the research environments – a discussion that is vital for preserving and developing the fundamental principles/values, ensuring responsible conduct of research and preventing research misconduct. This culture must be supplemented by training in responsible conduct of research at all levels (Bachelor's, Master's, PhD, postdoc/assistant professor and tenured staff). The purpose of research integrity teaching at Aarhus University is:

➢ To strengthen a responsible research culture and a responsible research environment at Aarhus University.
➢ To ensure that Aarhus University complies with national as well as international rules for responsible conduct of research.
➢ To prevent scientific dishonesty and other breaches of responsible conduct of research.

Training must be organised in accordance with the best national and international recommendations and contain the following elements:

➢ Principles of the responsible conduct of research
➢ International and Danish guidelines for responsible conduct of research
➢ Deviations from responsible conduct of research and research misconduct
➢ Advice on responsible conduct of research at Aarhus University
➢ Aarhus University's procedure for the investigation of suspicions of breach of responsible conduct of research and scientific dishonesty.
➢ DCSD and DCSD's guidelines on the handling of cases of scientific dishonesty.

4. Guidance regarding responsible conduct of research

Each faculty at Aarhus University has a special adviser for responsible conduct of research. The advisers are to provide for confidential and professional guidance on responsible conduct of research, and they have a special obligation to promote knowledge of responsible conduct of research at the faculties and at Aarhus University in general.

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[5] 1. Health, 2. Arts 3. Business and Social Science, 4. Science and Technology.

Advisers have the following tasks:

- To be available to provide independent and confidential advice to anyone affiliated with Aarhus University, including research groups, who has questions about the guidelines on responsible conduct of research or is in doubt regarding the extent to which the applicable standards and guidelines on responsible conduct of research are being met.
- To stay informed regarding the applicable standards and guidelines on responsible conduct of research and contribute to ensuring that responsible conduct of research is established and maintained at a high international level.
- To contribute to the teaching of research integrity and responsible conduct of research.
- To report to the Committee for Responsible Conduct of Research once a year, in anonymised form, on the inquiries received.

For the time being, the advisory scheme will be a 3-year trial scheme.

5. Handling suspicions of breach of responsible conduct of research and research misconduct

Aarhus University subscribes to the recommendations in the Danish Code of Conduct for Research Integrity and the DCSC's definition of research misconduct and other violations of responsible conduct of research:

1. Research misconduct. The central phenomena are fabrication, falsification and plagiarism, and other serious breaches of responsible conduct of research, committed deliberately or by gross negligence.
2. Questionable conduct of research. This includes actions representing violations of responsible conduct of research, but which cannot be classified as misconduct.[6]

Aarhus University encourages the university's employees to react to any suspicions of non-fulfilment of the requirements for responsible conduct of research. This is primarily ensured through an open and critical scientific dialogue in the research environments. In cases of certain knowledge or suspicion of breach of the institution's policy for responsible conduct of research, this must be reported in order for the case to be investigated.

At Aarhus University, the committee for Responsible Conduct of Research considers enquiries on research misconduct and other breaches of responsible conduct of research. The committee may choose to reject a case, investigate it or to refer it to DCSD.

In concrete cases of suspicion of breach of responsible conduct of research, *Aarhus University's policy to ensure research integrity and responsible conduct of research 2015* should be applied, which is based on the Danish Code of Conduct for Research Integrity and general principles of administrative law. This means that:

- Any investigation at Aarhus University of a claim or suspicion of breach of responsible conduct of research must be impartial, thorough and fair.
- A person against whom a complaint of breach of responsible conduct of research has been lodged must be notified of this.

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[6] Aarhus University's code of practice to ensure scientific integrity and responsible conduct of research at Aarhus University

- A person who in good faith raises a claim or suspicion of breach of responsible conduct of research may not be punished or harassed, and it is the institution's duty to protect the complainant against this.
- If it turns out that the complainant was in bad faith, he or she may be charged with breach of responsible conduct of research.
- The consideration of cases must ensure that all parties involved in the case receive fast, thorough, fair and lawful treatment.

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