

CTR's considerations and initiatives concerning research integrity and good research conduct

CTR staff adheres to the advice and 'best practice' listed by DNRF and collected in other centers of excellence. These are useful tools and guidelines for CTR as well.

We also believe that research integrity and good research conduct is best enhanced by **trust, collegial supervision, and formalized review structures** both internally and externally; we particularly care for a **positive and open-minded research environment** where innovative and cutting-edge ideas and approaches can be discussed, approved or dismissed.

We provide both young and experienced researchers with specific and careful **mentoring**. CTR Marie Curie mobility grant holders have a Scientist in Charge at CTR and are also linked to a mentor at CTR with whom it is possible to discuss the many different aspects of research. Most PhD students have in addition to their supervisor an informal CTR researcher with whom they collaborate and discuss their work. All PhD students at UCPH go through a compulsory course about scientific fraud.

We share articles and new knowledge in the various research groups at CTR. Research results, ongoing work and conference papers are often discussed within the research groups and research programs with colleagues before being presented at conferences or through publication. Conference papers/presentations are often rehearsed within the CTR research groups.

We seek to compose research groups with a high diversity of ethnicity, ages, gender, training and fields of research in order to create and conduct the best research possible. We believe that this is the best way to create new ideas and innovation in scientific endeavors. It is also a way to safeguard ourselves from errors.

We write clear **manuals** for databases so that others can **follow and verify our methods**, so they are easily **reproducible** by any researcher. We **publish our preliminary results in order to share knowledge** and to allow colleagues to comment and criticize if necessary.

CTR publication strategy

Since CTR opened in 2005 the publication strategy has developed and undergone adjustments towards a stronger focus on peer-reviewed publications. These changes have been specially triggered by the ever growing cross-disciplinary fields and constantly changing research collaborations within which the CTR researcher operates.

In general CTR researchers use the following guidelines:

- 1) The **Vancouver Group guidelines of co-authorship** accommodating minor changes to suit the different fora that CTR's fellows publish in
- 2) The **author sequence** is discussed and decided early in each publication project and depends on the academic forum that the authors chose to publish in, e.g., book, journal or popular article, and

the scientific field, e.g. Humanities, Natural Sciences or interdisciplinary research. However, for CTR publications in general we often use the alphabetical order for authors.

3) PhD students and post docs are most often encouraged to publish alone, as it is the convention in the Humanities. Only in the cases where the supervisor or others have contributed significantly to the research are they included as authors in the publication. This, however, must be decided at the outset of a joint project. However, this may be different in the cases where the PhD/post docs are interdisciplinary, in which case guideline 2) is followed.

4) Concerning **dissemination** of research results to the general public, co-authors are notified or contacted when the press is interested in their particular contribution. Usually one of the authors is designated to be in charge of press and public outreach for that specific publication. Moreover, all the authors are always cited.

5) **Acknowledgments of institutions** must be respected. CTR researchers are instructed to mention the DG funding (DNRF 64) in presentations and publications. We also acknowledge UCPH and the National Museum of Denmark as well as specific funding bodies. This is valid for lectures, posters and publications.

6) **Acknowledgments of contributing colleagues** and their institutions must be respected for contributing by e.g., providing samples, or giving feedback. This is valid for lectures, posters and publications.

7) In some academic fields, such as history or classical philology and archaeology, extensive **reference to colleagues' works** is an important way to acknowledge their work and thereby avoid conflicts of originality.

8) We encourage and prefer publication of research results in **peer reviewed journals**.

9) We prefer to use **Open Access** journals when possible, and use parts of our funding to pay for Open Access fees.

CTR initiatives and policy when conducting interdisciplinary research

Conducting **interdisciplinary research** means leaving the known academic comfort zone and **entering fields which are new and unknown**. It compels us to **listen to other experts and to learn from them**. To a certain degree we must **trust** each other, and the academic discussions have to focus on methods, research design and interpretation of results. These are some examples of good practice:

1) Research results are **questioned** and discussed openly in the team.

2) We encourage an open and **source critical** environment.

3) In laboratories and for external textile analysis we recommend using **blind tests**.

4) We also encourage repeating the same analyses in different laboratories in order to verify the results and to check for **reproducibility** (but only where the same scientific methods and equipment are used).

In our field of research, these measures also depend on the **availability of samples** (limitations due to the archaeological nature/originality/scarcity of some materials), access to laboratories and rarity of experts available in the current fields of work. Above all, the costs.

CTR initiatives and policy when dealing with cultural heritage, human tissue, and global collaborations

- 1) We aim to apply **non-destructive** methods whenever possible.
- 2) We are very aware of the research **ethics** in fields involving **human remains** since the majority of archaeological textiles finds come from human burials. Respect for mortal remains of the dead shall be accorded to all, irrespective of origin, gender, age, religion, nationality, custom and tradition.
- 3) Respect for the scientific research value of skeletal, mummified and other human remains shall be accorded when such values exist, **when no other ways exist to obtain the results**, and when it does not **contravene the sentiments of the living communities**.
- 4) We respect the **intellectual property rights** of patterns and techniques of some cultures and will acknowledge them when relevant.
- 5) **We acknowledge all CTR members and collaborators** irrespective of origin, gender, age, religion, nationality, custom and tradition, and further work for a multicultural environment and creative research atmosphere.
- 6) We design our research in order to establish respectful and **equitable partnerships** and relationships between CTR and **local people** whose cultural heritage is being investigated.
- 7) In our **global collaborations**, we are aware that as a center of excellence, we are privileged with the resources at our disposal, especially financial. This gives us the responsibility to be aware of the sensitivities that can derive from this issue, in a diplomatic and respectful way.

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