

## Scientific conduct and misconduct

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### Plan for the afternoon

- Fraud and misconduct in research
- Grey zones in research: discussion
- Co-authorship: intro + discussion

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- **Handling of the consequences of research**
  - Responsibility for presentation and use of results

## Three forms of scientific misconduct (FFP)

- Fabrication
- Forgery (falsification)
- Plagiarism

Central question for evaluations:  
Are the presented results misleading?

## What is the problem with scientific misconduct?

- Threatens the reliability of research results
- Risk that research resources are wasted
- Threatens the general public's trust in research
- Might have negative impact on society or the environment

## Grey zones?

- Fabrication?
- Forgery?
- Plagiarism?
- Other (statistics, selection ...)?

Discuss difficulties in drawing the line between acceptable and unacceptable research practices, e.g., based on your own experiences

## Co-authorship in research

- Publications central in researchers' CVs
- Who gets to be on the papers and why therefore becomes a very important issue
- Much criticism about questionable practices
- Also criticism regarding major guidelines
- Now: discussion of guidelines and practices

## ICMJE Recommendations: authorship criteria

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

### To discuss (suggestions):

What difference does it make how authorship is handled?

Are the ICMJE authorship criteria reasonable? Why/why not?

Exemplify insufficient authorship contributions, according to criteria

Give examples of flaws in practice: inclusions/exclusions

### Insufficient grounds for authorship according to the Vancouver rules

- To be the leader of the research group
- To supply the funding of the research
- To be formal main supervisor of the PhD student
- To have collected data but not participated with critical input in the revision of the paper
- To approve the content of a paper ghost-written by others (where the study has been done by others)
- To have done something good other than research

### Authorship order

- Meant to reflect relative contribution
- Known praxis: first, last, second, third ... second to last
- But there are other interpretations
  - Second to last honourable; last not very good; corresponding author most important
- Misleading and unfair given any specific valuation of positions
  - Faculty funding (e.g. UU)