Research Integrity @ VIB

René Custers
Regulatory & responsible research manager
Principes

- Policy statement op website en intranet VIB
- Arbeidsreglement
VIB employment regulations

**Article 26 Scientific quality and integrity**

All research activities will be carried out with observance of the highest standards of integrity and responsibility. The employee will observe the appropriate quality standards in the process. Experiments and research results will be described in detail and laid down accurately, in compliance with the proper traceability standards. The hope or expectation to find certain research findings may not lead to any prejudice. Scientific fraud is prohibited.

Suspicion of scientific fraud must be reported to the research integrity officer, René Custers (09 244 66 11). Alleged cases of fraud will be treated with the greatest care, with due respect for the integrity both of the person reporting and the person suspected of fraud. A preliminary investigation will, if necessary, be followed by an in-depth examination. Scientific fraud is a serious offence and leads to the termination of employment agreement for urgent reasons.
Scientific misconduct or misconduct in science means fabrication of data, falsification (e.g. through the undisclosed selection and suppression of unwanted results or through the manipulation of a representation or illustration), plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data.
Structuren & rollen

• Research Integrity Officer
• Geen vaste CWI, expertcomite indien nodig

• Rol RIO
  • Meldpunt, uitrollen procedure, preliminary investigation
  • Uitbouwen beleid

• Rol directie
  • Sanctionering
Interactie met univs

• Joint venture structuur
• Onderlinge afstemming en informatie-uitwisseling
• Een van de twee instellingen leidend in de procedure
• Gezamenlijke besluitvorming
Procedure

Step 0: Notification/complaint admissible?

Step 1: Preliminary investigation
- Interviews, fact finding
- Report

Misconduct → clear
Not clear

A complaint needs to be specific and substantiated

Step 2: Full investigation (committee of peers)
- Interviews, fact finding
- Report

Management decisions
- Sanctions
- Correction of scientific record
Acceptable scientific image manipulations

Introduction
Images represent a very important source of information in scientific articles. Much of what we conclude comes from what we see in a picture. In our area of life sciences we use images of gels, blots, organisms, cells, organelles and much more. Images can be manipulated to help us better see what is in the image. Contrast, grey scale and brightness can be adjusted, filters can be used, images can be cropped or compressed, the number of pixels altered, lanes or zones can be cut away, etc. Certain alterations are linear, others are non-linear. Not all manipulations are scientifically correct. There are manipulations that fall within the scope of scientific misconduct, because they result in misrepresentation of the data. Such misrepresentation makes it impossible for others to interpret the data correctly, or worse, leads to conclusions that are not correct. Scientific misconduct is generally seen as a very serious offense that is likely to harm a scientific career, and may result in severe sanctions (see VIB policy and procedures on scientific misconduct).

Below a guideline and recommendations are given for what constitutes acceptable scientific image manipulations.
VIB Institutional Authorship guidelines

These authorship guidelines have been developed from the Authorship Guidelines of the Faculty of Medicine of Harvard University of December 17, 1989.

1. Introduction

Authorship is an explicit way of assigning responsibility and giving credit for intellectual work. The two are linked. Authorship practices should be judged by how honestly they reflect actual contributions to the final product. Authorship is important to the reputation, academic promotion, and grant support of the individuals involved as well as to the strength and reputation of their institution.

Many institutions and peer-reviewed journals have established standards for authorship. These standards are similar on basic issues but are changing over time, mainly to take into account the growing proportion of research that is done by teams whose members have specialized roles.
How to create a fraud-free research environment

1. Always check references
2. Avoid loners or 'lone wolfs'
3. Hold weekly lab meetings
4. Look at raw data
5. Require detail in lab notebooks
6. Use electronic lab notebooks (ELN)
7. Be attentive to signs of tension or stress
8. Create open channels of communication
9. Follow the rules

Recommendations on how to create a fraud-free research unit

Introduction
VIB has procedures in place to deal with possible cases of research misconduct. Research misconduct is defined within VIB as: "fabrication of data, falsification (e.g. through the undisclosed selection and suppression of unwanted results or through the manipulation of a representation or illustration), plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting, or reporting research. It does not include honest errors or honest differences in interpretations or judgments of data".

Of course it is much better to prevent research misconduct from happening, rather than having to respond to alleged cases of misconduct. There are measures that one can take at institutional level and measures that one can take at the level of a research group or unit. In this document recommendations are given for the latter, that is, on how to create a fraud-free research group or unit. These recommendations have been adapted from an OECD document and a Meta-Research Innovation Center (M-RIC) Scientist.
Bewustmaking, sensibilisering
Opleiding

- Research ethics course
- Smart research design & statistics
- Bio-informatics statistics courses
- Correct manipulation of scientific images