ÖSTERREICHISCHE
AGENTUR FÜR
WISSENSCHAFTLICHE
INTEGRITÄT

Good Scientific Practice Research Misconduct

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European Network of Research Integrity Offices (ENRIO)

Safeguarding Good Scientific Practice

Singapore Statement

www.singaporestatement.org

Researchers

- responsible for the trustworthiness of their research
- be aware of and adhere to regulations and policies related to research

Singapore Statement

www.singaporestatement.org

Research Methods

- employ appropriate research methods
- base conclusions on critical analysis of the evidence
- report findings and interpretations fully and objectively

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Part I

Precise records and documentation:

- !reproducibility!
- primary data must be stored reliably and retained for a period of ten (OeAWI recommendation!) years

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Part I

Questions

- What is primary data?
- How do you record your data/different versions of reports/manuscripts/…?
- How can you ensure safe data storage?
- Who is responsible for data management?

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Part II

Make results available for the scientific community (publish!):

- Publications represent a form of documentation of scientist's work

Choose the right journal: https://thinkchecksubmit.org/

Are you submitting your research to a trusted journal?
Is it the right journal for your work?

Use our check list to assess the journal

Only if you can answer 'yes' to the questions on our check list

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Part III

Strict honesty in regard to contributions of partners and competitors

- **Transparent and comprehensible** ("who did what")
- careful unbiased review of colleagues' work

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Part IV

Disclose a potential conflict of interest

Do not hamper or obstruct work of competitors

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Part V

Supporting early career researchers:

- Besides teaching methods convey basic ethical attitude toward
  - scientific work
  - dealing with results in a responsible manner
  - working together with other scientists
- young scientists have a right to have regular
  - scientific supervision
  - Advising
  - support

Research Misconduct & breaches of GSP rules: most frequent incidents

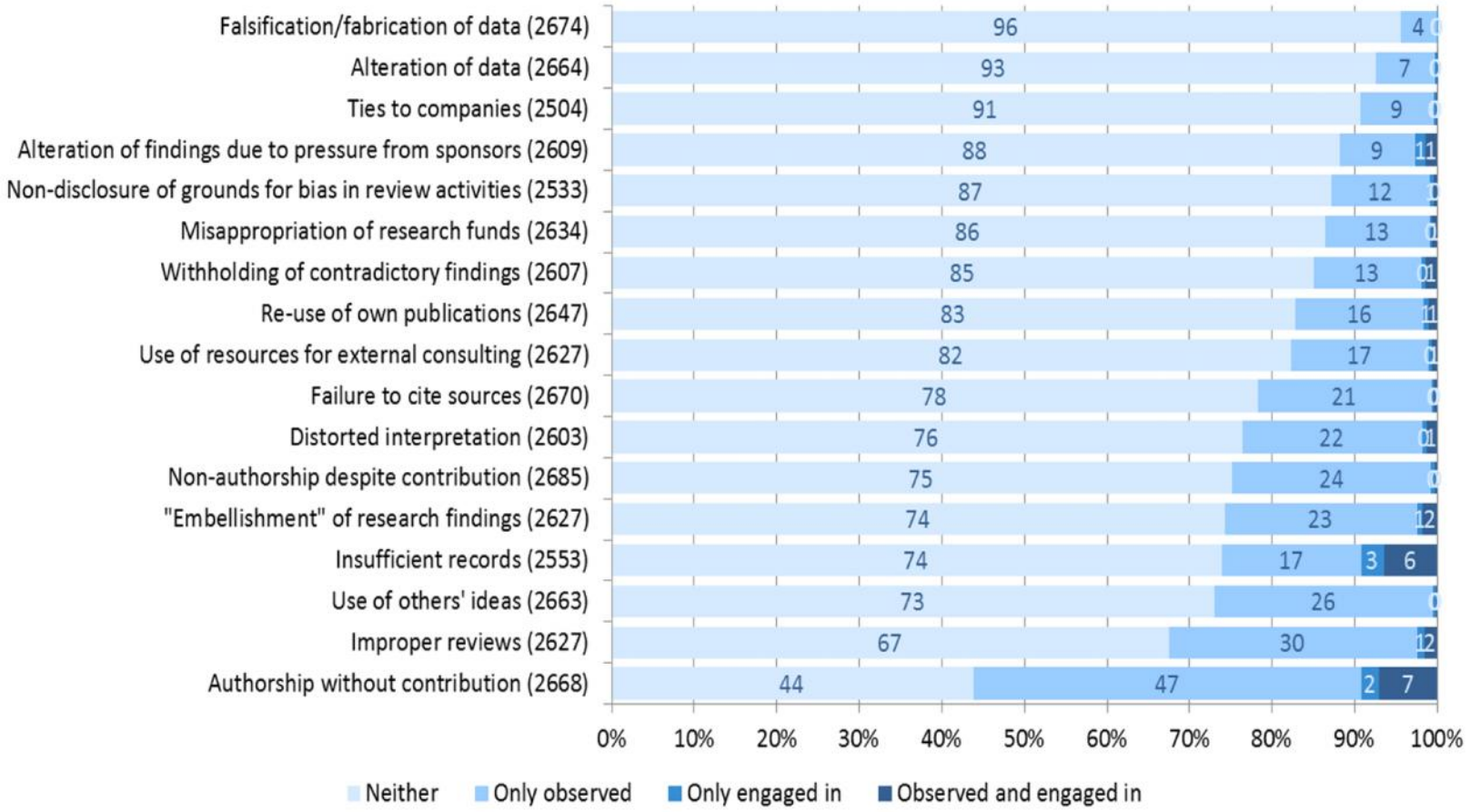
Survey „Self-reported research misconduct“

Austria (2013)

- Germany 2010: DFG Scientists Survey (Böhmer et al. 2011):
  “self-reported data on research misconduct” at German universities
- Austria 2013: FWF and Institute for Research Information and Quality Assurance (iFQ); Neufeld et al 2014
- Participants: more than 3.000 Austrian researchers

Survey „Self-reported research misconduct“

Austria (2013)



Authorship

- Diploma and PhD students, Postdoctoral fellows not credited as an author
- conflicts among established scientists
- Honorary authorship

Advice:
Avoid problems and find agreement at a very early stage (also about the order of authorship)!

Who is an author of a publication?*

Based on 4 criteria

1. substantial contributions to the **conception or design** of the work; or the **acquisition, analysis, or interpretation** of data for the work; 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 in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

* ICMJE recommendations (updated Dec 2017): http://www.icmje.org/icmje-recommendations.pdf

Non-author contributors

Examples of activities that alone (without additional contributions) do not qualify a contributor for authorship:

- Acquisition of funding
- General supervision of a research group
- General administrative support
- Writing assistance, technical editing, language editing and proofreading

Advice:
Indicate individual contributions of each co-author!!!

Plagiarism

Plagiarism

Using someone else's text as one's own without proper citation

Duplicate publication ("Self-plagiarism)

Reuse of own previously written work in „new" written products without citation („double-dipping")

Plagiarism

Guideline 8*

A responsible writer has an **ethical responsibility** to readers, and to the author/s from whom s/he is borrowing, to **respect other's ideas and words**, to **credit those** from whom we borrow, and whenever possible, to use one's own words when **paraphrasing**.

*Avoiding plagiarism, self-plagiarism, and other questionable writing practices: A guide to ethical writing; M. Roig

Plagiarism

Are „duplicated/redundant papers“ not acceptable at all?

- ✔ addressing different groups of scientists
  (e.g. physicians, computer scientists,…)
- ✔ translated into another language

But:
The editor, reader,… should know it: **CITE!!!!**

Obstruction of research

- Inadequate leadership, mentoring, counselling of students
- Unfair attempts to diminish other researchers' reputation
  by unspecific and unfounded accusations
- Sabotage: obstruction, destroying, manipulation of experiments, instruments, documentation, hardware, chemicals,….

Falsification/manipulation

- Data fabrication
- Inappropriate interpretation of data
- Incomplete presentation („dropping“ of unwanted data,..)
- Manipulation of figures, tables,...
- ...

Misrepresentation:

in job applications or proposals („in print“, wrong journal,...)

Falsification/manipulation

How to prevent falsification and fabrication?

Advice*

- Regular lab meetings
- Lab presentations/seminars: not always PowerPoint presentations
- supervisor should regularly check lab books
- always check raw data for publications
- Never discard primary data for publications or project proposals
- „Drafting tip“: do not open old versions while writing new proposals or manuscripts

* Gretchen Brodnicki, Harvard Medical School; Dean for Faculty and Research Integrity

Peer review

Which problems do occur?

- Bias
- Misuse of peer-review function
- Retain other‘s publications, funding of projects

What is a Conflict of Interest (CoI)?

And what can you do about it?

- Financial matters
- Intellectual matters
- Personal matters

Advice:

Report possible CoI and funding agencies, journal editors,... should make final decision

- Good luck for your career!
- Make the most of your talents!
- !Stay honest! ;)))