European Code of Conduct for Research Integrity

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The European Code of Conduct for Research Integrity

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20” Poll

The European Code of Conduct for Research Integrity

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- Define the criteria for proper research behaviour
- Maximize quality and robustness of research
- Responds to the violation of research integrity

Principles of Research Integrity

Principles of Research Integrity

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Good Research Practices

Research Environment

Research integrity awareness

Data management and protection

Research Institution

Good Research practice policies

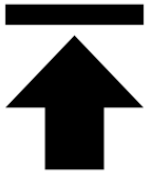
Reward open and reproducible practices

Research Procedures

State-of-the-art consideration

Verifiable and reproducible results

Design, carry out, analyse and document research



Open, honest, transparent and accurate publications

Conscientious use of funds

Training, Supervision and Mentoring

Research design, methodology and analysis

Ethics and research integrity

Research Institution

Safeguard

Codes and regulations compliance

Recognize and manage potential risks

Preserve health and safety of involved partners

Handle research subjects with respect and care

Data Practices and Management

Secure preservation of data and research materials

Researcher

Findable, Accessible, Interoperable and Re-usable Data

Transparent access to research material

Research Institution

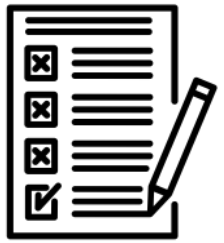
Fair and equitable contracts for research output handling

Publication and Dissemination

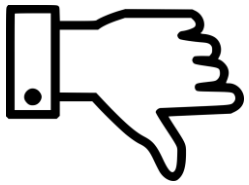
Properly acknowledge all contributors

Sequence of authorship agreement

Responsible for content of a publication



Correct or retract work if necessary



Negative results as valid as positive results

Share findings timely, openly, transparently and accurately

Collaborative Working

Joint responsibility of research integrity

Outset agreement on research goals

Researcher

Research Institution

Agreement on research integrity, regulations, IP and conflict handling

Inform and consult for publications

Reviewing, Evaluating and Editing

Participate in refereeing, reviewing and evaluation

Ensure confidentiality

Respect the rights of submitting authors and applicants

Reject to review or evaluate when conflict of interests are involved

Transparent and justifiable reviews and evaluation

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Researcher

Transparent and justifiable reviews and evaluation

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Violations of Research Integrity

Research Misconduct

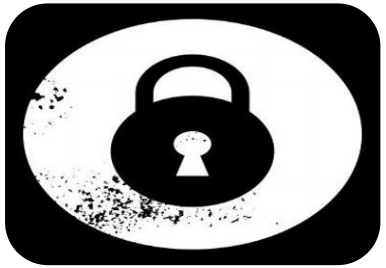
Fabrication

Falsification

Plagiarism

Other Unacceptable Practices

Collaboration Issues



Withholding research results

False Accusations

Research Misinterpretation

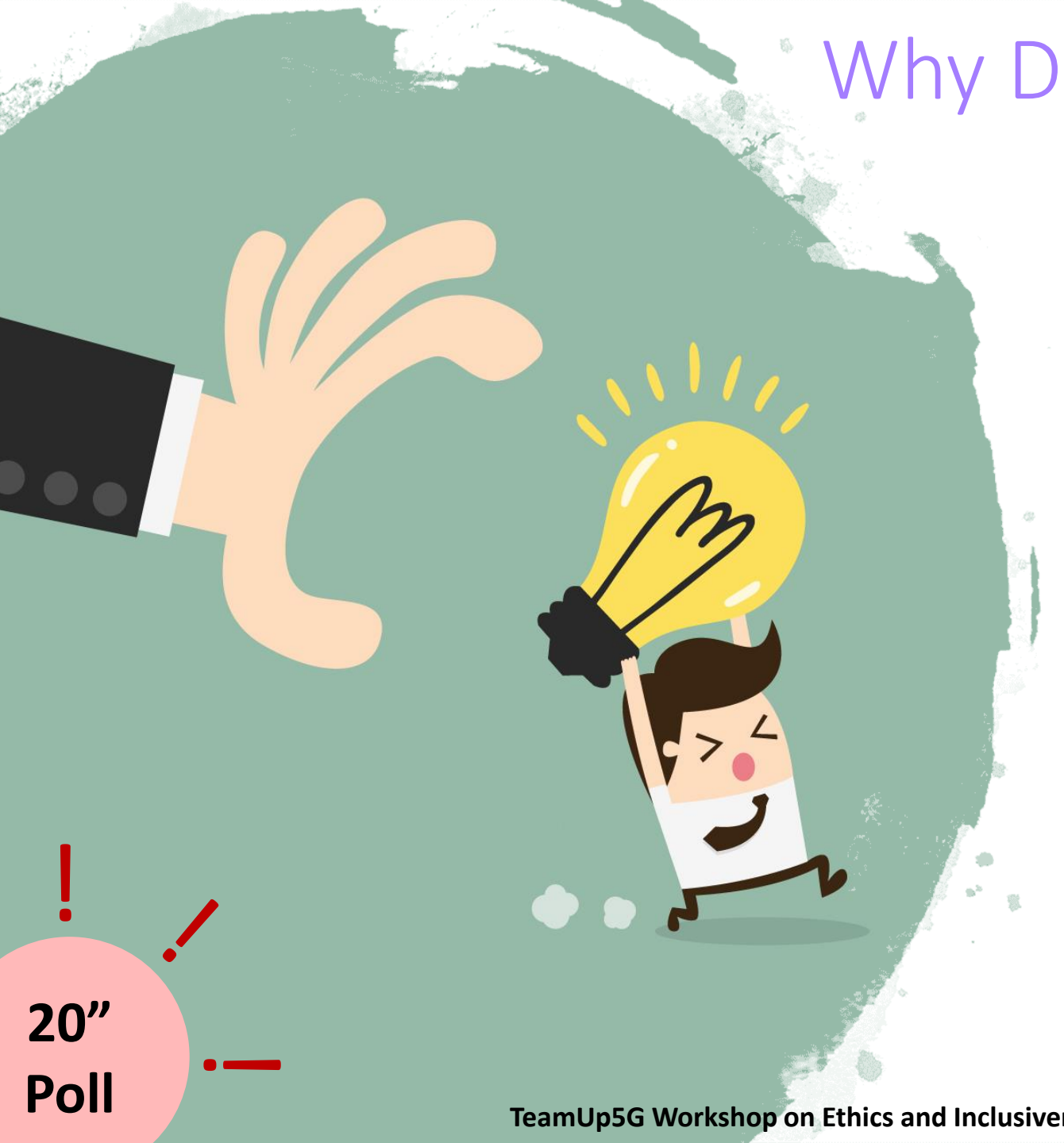
Misusing seniority

Quality Assessment

Why Does Research Misconduct Occur?

- Lack of documentation
- Lack of communication
- Compromised objectivity
- Pressure to finish
- Missing leadership
- Adversarial relationships
- Lack of training
- Too much work
- Recognition and distinction

Why Does Research Misconduct Occur?



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Dealing with Violations and Allegations of Misconduct

INTEGRITY

- Fair and comprehensive investigations
- Any conflict of interest must be declared.
- Procedures are conducted confidentially.
- Publicly available and accessible general procedures and actions.
- Investigations must be carried through to a conclusion.

FAIRNESS

- Investigations are carried out with due process and in fairness to all parties.
- Investigated researchers are given full details of the allegation(s).
- Action is taken against persons for whom an allegation of misconduct is upheld.
- Restorative action is taken when researchers are exonerated of an allegation of misconduct.
- Innocence is presumed until proven otherwise.

Dealing with Violations and Allegations of Misconduct

But… Do you know to whom you should make an allegation of research misconduct at your institution?

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New RAN TEchniques for 5G UltrA-dense Mobile networks - TeamUp5G

Grant Agreement Number: 813391
Project Acronym: TeamUp5G
Funding Scheme: H2020: MARIE Skłodowska-CURIE ACTIONS. H2020-MSCA-ITN-2018
Thematic Area: Innovative Training Networks (ITN)
Project start date: 01/01/2019
http://teamup5g.webs.tsc.uc3m.es/

Supoorting slides

MISCONDUCT

Report finds massive fraud at Dutch universities

Investigation claims dozens of social-psychology papers contain faked data.

BY EWEN CALLAWAY

When colleagues called the work of Dutch psychologist Diederik Stapel too good to be true, they meant it as a compliment. But a preliminary investigative report (go.nature.com/tqmp5c) released on 31 October gives literal meaning to the phrase, detailing years of data manipulation and blatant fabrication by the prominent Tilburg University researcher.

"We have some 30 papers in peer-reviewed journals where we are actually sure that they are fake, and there are more to come," says Pim Levelt, chair of the committee that investigated Stapel's work at the university.

Stapel's eye-catching studies on aspects of social behaviour such as power and stereotyping garnered wide press coverage. For example, in a recent *Science* paper (which the investigation has not identified as fraudulent), Stapel reported that untidy environments encouraged discrimination (*Science* **332**, 251–253; 2011).

"Somebody used the word 'wunderkind'," says Miles Hewstone, a social psychologist at the University of Oxford, UK. "He was one of the bright thrusting young stars of Dutch social psychology — highly published, highly cited, prize-winning, worked with lots of people, and very well thought of in the field."

In early September, however, Stapel was suspended from his position as dean of the Tilburg School of Social and Behavioral Sciences over suspicions of research fraud. In late August, three young researchers under Stapel's supervision had found irregularities in published data and notified the head of the social-psychology department, Marcel Zeelenberg. Levelt's committee joined up with sister committees at the universities of Groningen and Amsterdam, where Stapel has also worked, to produce the report. They are now combing through his publications and their supporting data, and interviewing collaborators, to map out the full extent of the misconduct.

Dutch psychologist Diederik Stapel.

PERSSUIKER ALVAN DEN BOSCHOEN

MISTAKES MADE

Stapel initially cooperated with the investigation by identifying fraudulent publications, but stopped because he said he was not physically or emotionally able to continue, says Levelt. In a statement, translated from Dutch, that is appended to the report, Stapel says: "I have made mistakes, but I was and am honestly concerned with the field of social psychology. I therefore regret the pain that I have caused others." *Nature* was unable to contact Stapel for comment.

The report does not identify specific papers that contain manipulated or fabricated data, pending the completion of the investigations. The investigators conclude, though, that Stapel acted alone. "The co-authors, and in particular the PhD students, were absolutely not involved, they really didn't know what was going on in this data fabrication," Levelt says.

Often, the report says, Stapel and a colleague or student came up with a hypothesis, and then designed an experiment to test it. Stapel took responsibility for collecting data through what he said was a network of contacts at other institutions, and several weeks later produced a fictitious data file for his colleague to write up into a paper. On other occasions, Stapel received co-authorship after producing data he claimed to have collected previously that exactly matched the needs of a colleague working on a particular study.

The data were also suspicious, the report says: effects were large; missing data and outliers were rare; and hypotheses were rarely refuted. Journals publishing Stapel's papers did not question the omission of details about where the data came from. "We see that the scientific checks and balances process has failed at several levels," Levelt says.

At a press conference, Tilburg University's rector, Philip Eijlander, said that he would pursue criminal prosecution of Stapel. The committee is also producing a list of tainted papers to guide co-authors and journal publishers in what will probably be a long list of retractions.

Joris Lammers, a psychologist at Tilburg who did his PhD under Stapel's supervision, says he is "shocked" by the findings. Lammers says he worked independently of Stapel and collected all the data in his PhD himself — the report notes that his dissertation is not under suspicion. Several other former collaborators contacted by *Nature* declined to comment.

Hewstone, who has never worked with Stapel, had initially fretted that Stapel's fraudulent oeuvre would undermine other findings in the field of social psychology. While editing a new edition of a social-psychology textbook, however, Hewstone turned up no references to Stapel's work in 15 chapters, suggesting that Stapel's work was not as influential as he had thought. "I think the impact is going to be particularly devastating for the young people he worked with, but not for the field of social psychology as such," he says. ■

MORE ONLINE

TOP STORY

Clues from China add to knowledge of genetics behind schizophrenia go.nature.com/ia4coo

MORE NEWS

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- Spanish institute faces cash crisis go.nature.com/wwwtlp

J. P. MEY/ IMAGE BANK/GETTY IMAGES

Faked Research Results on Rise? Associated Press

Story location: http://www.wired.com/news/medtech/0,1286,68153,00.html

11:00 AM Jul. 10, 2003 PT

Allegations of misconduct by U.S. researchers reached record highs last year as the Department of Health and Human Services received 274 complaints -- 50 percent h than 2003 and the most since 1989 when the federal government established a prog deal with scientific misconduct.

Chris Pascal, director of the federal Office of Research Integrity, said its 28 staffer million annual budget haven't kept pace with the allegations. The result: Only 23 ca were closed last year. Of those, eight individuals were found guilty of research mis In the past 15 years, the office has confirmed about 185 cases of scientific miscond

Research suggests this is but a small fraction of all the incidents of fabrication, fals and plagiarism. In a survey published June 9 in the journal Nature, about 1.5 perce 3,247 researchers who responded admitted to falsification or plagiarism. (One in th admitted to some type of professional misbehavior.)

On the night of his 12th wedding anniversary, Dr. Andrew Friedman was terrified.

This brilliant surgeon and researcher at Brigham and Women's Hospital and Harva Medical School feared that he was about to lose everything -- his career, his family he'd built -- because his boss was coming closer and closer to the truth: For the pas years, Friedman had been faking -- actually making up -- data in some of the respe peer-reviewed studies he had published in top medical journals.

"It is difficult for me to describe the degree of panic and irrational thought that I wa through," he would later tell an inquiry panel at Harvard.

On this night, March 13, 1995, he had been ordered in writing by his department ch clear up what appeared to be suspicious data. But Friedman didn't clear things up.

"I did something which was the worst possible thing I could have done," he testifie went to the medical record room, and for the next three or four hours he pulled out permanent medical files of a handful of patients. Then, covered up his lies, scribbli information he needed to support his study. "I created data. I made it up. I also mad patients that were fictitious," he testified.

Friedman's wife met him at the door when he came home that night. He wept uncontrollably. The next morning he had an emergency appointment with his psych

But he didn't tell the therapist the truth, and his lies continued for 10 more days, du which time he delivered a letter, and copies of the doctored files, to his boss. Event

To start with why we are stressing more on good and ethical research practices now more than ever....

- What we can learn from the Stapel case?
- What allowed Stapel to continue his misconduct for so long?

research misconduct

Experts Call for National Research Integrity Advisory Board

February 11, 2019 by University of Illinois

Leaders in academia have formalized a proposal to assemble an official advisory board to support ethical behavior in research institutions

Stem Cell Scientist Fails to Reproduce Results

December 22, 2014 by Lab Manager

The STAP stem cell scandal at Japan's RIKEN research institute officially came to a close on Friday where it was announced at an Osaka news conference that Haruko Obokata, the stem cell scientist behind the research, was unable to replicate her results in a recent set of experiments.

University Investigates Claims of Image Tampering in Nanotech Paper

August 26, 2013

Another University of Utah researcher is in the hot seat not long after a fellow researcher was punished for tampering with data from 11 papers.

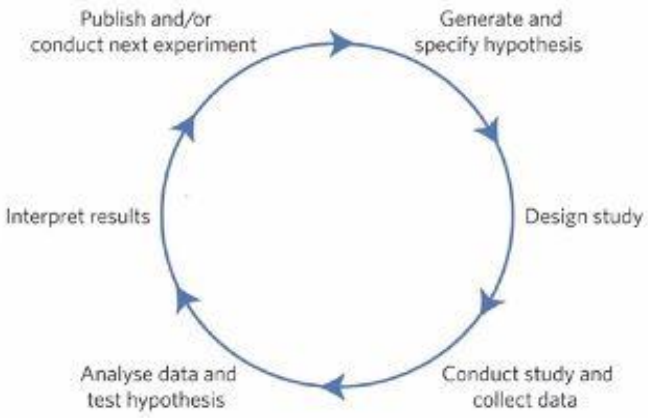
Report Slams University of Utah Medical Lab for Misconduct

August 5, 2013

An internal review has discovered that, over five years, a medicine lab at the University of Utah "recklessly" fiddled with data in 11 papers.

How we think we do research

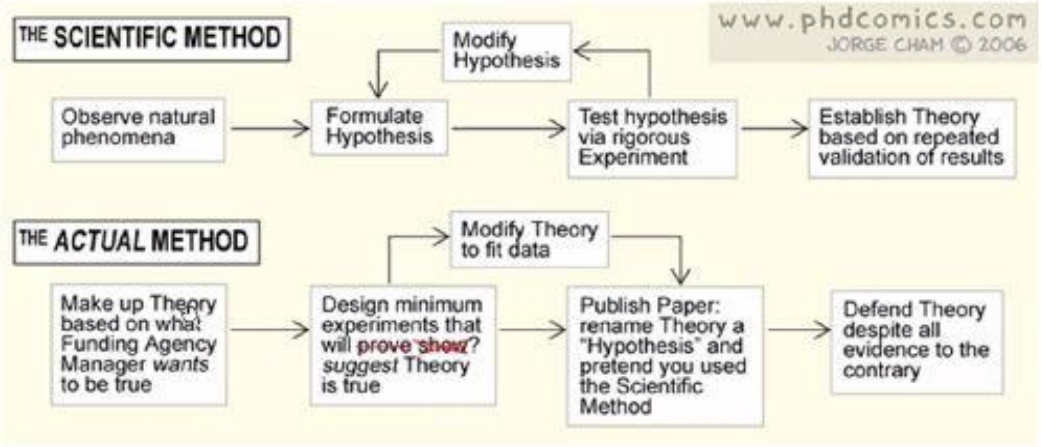
Idealized (textbook)



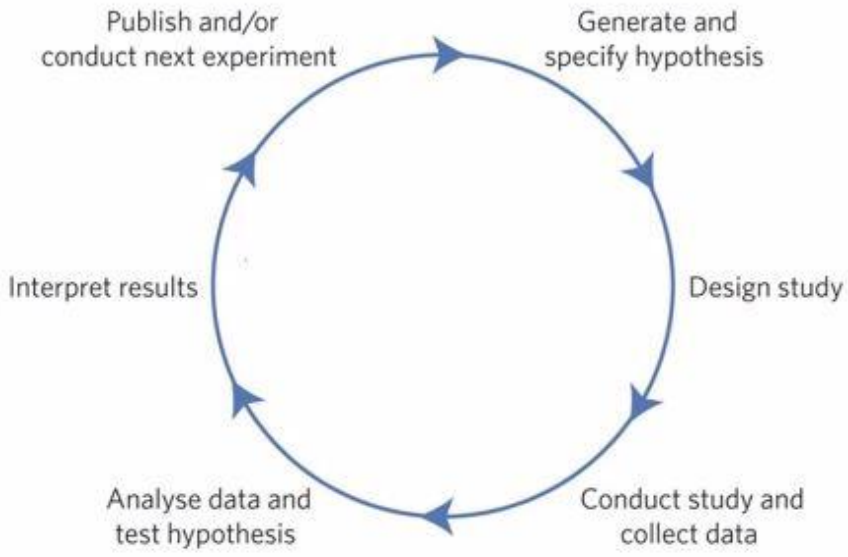
More realistic

©Lise Degn

The more unfortunate



Good research practice



This is just one way of idealizing the research process

2. Good Research Practices

We describe good research practices in the following contexts:

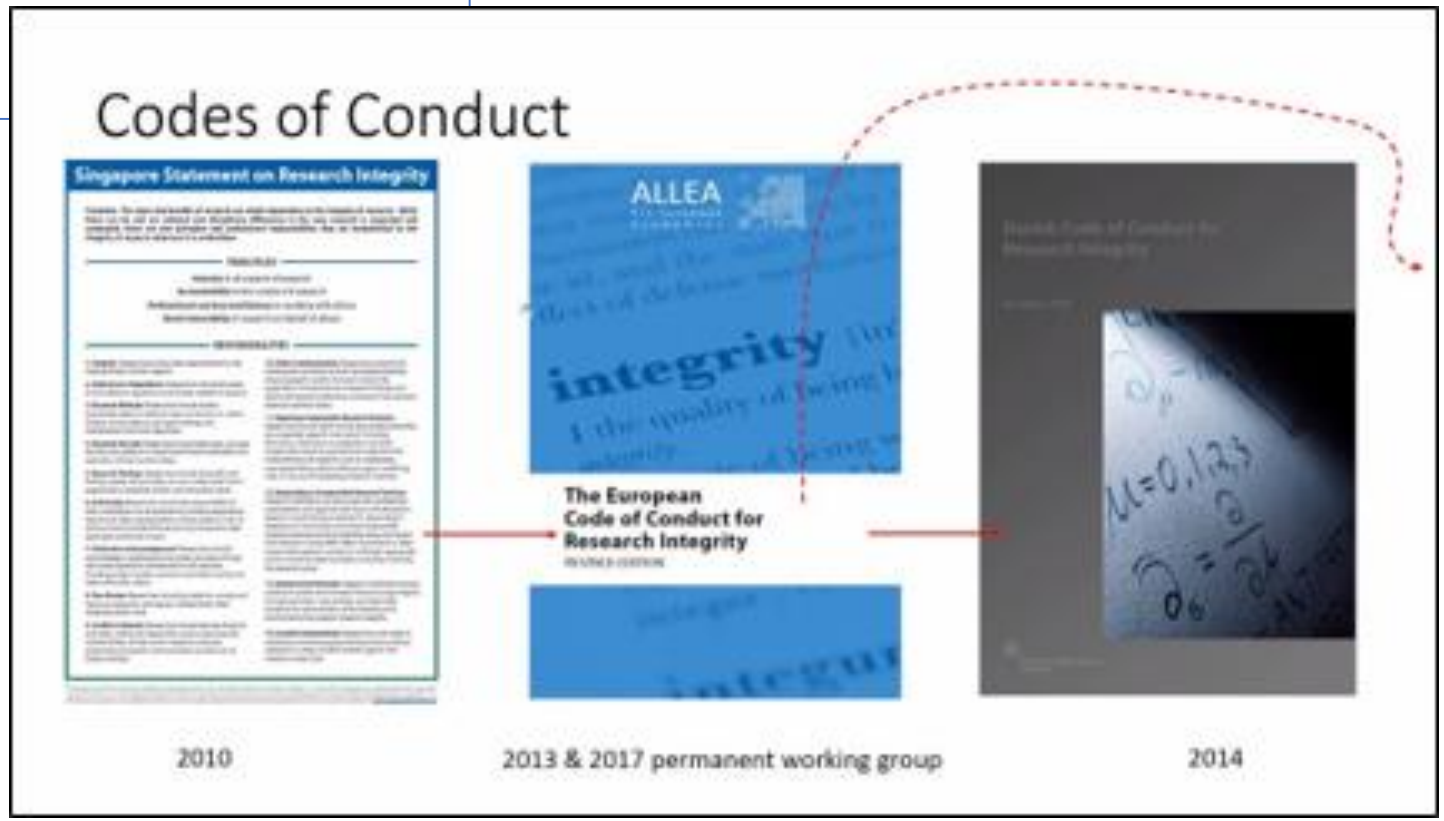
- Research Environment
- Training, Supervision and Mentoring
- Research Procedures
- Safeguards
- Data Practices and Management
- Collaborative Working
- Publication and Dissemination
- Reviewing, Evaluating and Editing

For example:

- Be honest and open about your research
- Consciously review and report the basic premises of your studies
- Openly account for all your methods and results
- Openly account for your commercial interests and other associations
- Properly acknowledge others' work as well as collaborators
- Keep your research organized, for example through documentation and filing
- Strive to conduct your research without doing harm to people, animals or the environment
- Be fair in your judgement of others' research
- …

Brief history

- 2010s – International codes of conducts, further legislation
  - EU requirements of national codes of conduct
  - But also emerging research areas focussing on these issues, World Congress of Research Integrity (2010 - Singapore Statement on Research Integrity)
- 2014 – Danish Code of Conduct
- 2016 – Call for research in research integrity by Danish Ministry of Research & Education
  2017 – The new revised Danish Law on scientific "uredelighed" (malpractice, misconduct, dishonesty?)



Continuum of research behaviors

Research behaviours: 'shades of gray'

Responsible conduct of research (RCR)
- the white zone, good research practices and behaviour with high integrity

Research misconduct (RM)
- The black zone, fraudulent practices and misbehaviours

Narrowly defined by law in Denmark as:
- **Fabrication, Falsification and Plagiarism**

… in scholarly products

"Failure" of responsible conduct of research
(breaches of research integrity) =
research misconduct or
questionable research practices

Questionable research practices

Kapitel 1

Formål og anvendelsesområde

§ 1. Formålet med loven er at styrke troværdighed og integritet i dansk forskning.

Stk. 2. Loven fastlægger rammerne for håndtering af:

1) Videnskabelig uredelighed.
2) Tvivlsom forskningspraksis.

Between the clear-cut cases of responsible conduct, on the one side, and research misconduct, on the other, there is a grey zone within which "questionable research practices" remain a problem, and this zone has vague boundaries

It is therefore necessary for researchers to understand the concepts which lie on either side of, and delineate, this grey zone, and to reflect on the implications for their personal practice

Questionable research practices in a legal context

QRP: breach of **generally accepted standards** of responsible research practice including the standards outlined in the Danish Code of Conduct and other valid institutional, national and international practices and guidelines for research integrity

This will not be an easy task!

Vedtaget af Folketinget ved 3. behandling den 20. april 2017

Forslag

til

Lov om videnskabelig uredelighed m.v.

Kapitel 1

Formål og anvendelsesområde

§ 1. Formålet med loven er at styrke troværdighed og integritet i dansk forskning.

Stk. 2. Loven fastlægger rammerne for håndtering af:

1) Videnskabelig uredelighed.
2) Tvivlsom forskningspraksis.

§ 2. Loven finder anvendelse på følgende sager:

1) Sager, der vedrører forskning udført med hel eller delvis offentlig dansk støtte.
2) Sager, der vedrører forskning udført ved en offentlig dansk forskningsinstitution.

Stk. 2. Loven finder endvidere anvendelse på sager om videnskabelig uredelighed i privatfinansieret forskning, som ikke er omfattet af stk. 1, hvis den private virksomhed el.lign., der har udført forskningen, giver samtykke til behandlingen af sagen.

Kapitel 2

Definitioner

§ 3. I denne lov forstås ved:

1) Videnskabelig uredelighed: Fabrikering, forfalskning og plagiering, som er begået forsætligt eller groft uagtsomt ved planlægning, gennemførelse eller rapportering af forskning.
2) Fabrikering: Uoplyst konstruktion af data eller substitution med fiktive data.
3) Forfalskning: Manipulation af forskningsmateriale, udstyr eller processer samt ændring eller udeladelse af data eller resultater, hvorved forskning fremstår misvisende.
4) Plagiering: Tilegnelse af andres ideer, processer, resultater, tekst eller særlige begreber uden retmæssig kreditering.
5) Tvivlsom forskningspraksis: Brud på alment anerkendte standarder for ansvarlig forskningspraksis, herunder standarderne i den danske kodeks for integritet i forskning og andre gældende institutionelle, nationale og internationale praksisser og retningslinjer for integritet i forskning.
6) Videnskabeligt produkt: Et produkt frembragt ved anvendelse af videnskabelige metoder som led i forskning, herunder ansøgninger om forskningsmidler.
7) Forsker: En person, der er ph.d.-studerende, har en ph.d.-grad eller har tilsvarende kvalifikationer.
8) Forskningsinstitution: En offentlig dansk institution, der udøver forskning.

Stk. 2. Videnskabelig uredelighed, jf. stk. 1, nr. 1, omfatter ikke

1) tilfælde af fabrikering, forfalskning og plagiering, som kun har haft ringe betydning ved planlægningen, gennemførelsen eller rapporteringen af forskningen,
2) spørgsmål om videnskabelige teoriers holdbarhed og
3) spørgsmål om forskningskvaliteten af et videnskabeligt produkt.

Kapitel 3

Videnskabelig uredelighed

Nævnet for Videnskabelig Uredelighed

§ 4. Nævnet for Videnskabelig Uredelighed behandler sager om videnskabelig uredelighed i videnskabelige produkter.

Stk. 2. Sager efter stk. 1 skal vedrøre forskere, som har bidraget til at afgive det videnskabelige produkt i sagen.

§ 5. Nævnet for Videnskabelig Uredelighed består af 1 formand og 8-10 faglige medlemmer. For hvert fagligt medlem skal der være en suppleant. Faglige medlemmer og suppleanter skal repræsentere forskellige videnskabelige forskningsområder.

Stk. 2. Formanden skal være landsdommer og udpeges af uddannelses- og forskningsministeren efter indstilling fra domstolene.

Stk. 3. De faglige medlemmer og suppleanter skal være anerkendte forskere og udpeges af uddannelses- og forsk-

AX019942

Uddannelses- og Forskningsmin., j.nr. 16/023509

EXERCISE

- Think by yourself: Who is involved in each step of the process?
  - What are their responsibilities?
  - What are my responsibilities?
  - Are they clear to all involved?

- Discuss your thoughts in the groups