

Integrity  
in  
• Medical Research  
&  
Publication

J.E. Fenton

Scientific  
*dishonesty, misconduct  
& fraud*

- Public & scientific community more concerned
- Grey zone between scientific dishonesty  
&  
good scientific practice

Scientific  
*dishonesty, misconduct  
& fraud*

- Personal honesty & intelligence  
not necessarily linked
- Historical examples –  
polar expeditions / anthropology  
/ natural sciences / humanities

Scientific  
*dishonesty, misconduct  
& fraud*

- Piracy
- Plagiarism
- Fraud



Scientific *dishonesty, misconduct & fraud*

Q.1

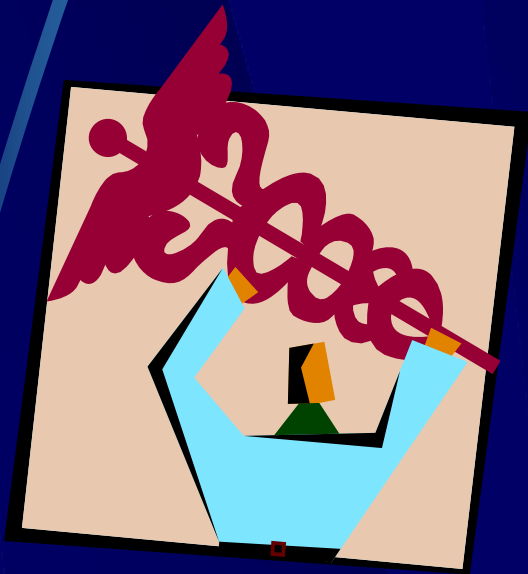
- Piracy?
- Plagiarism?
- Fraud?



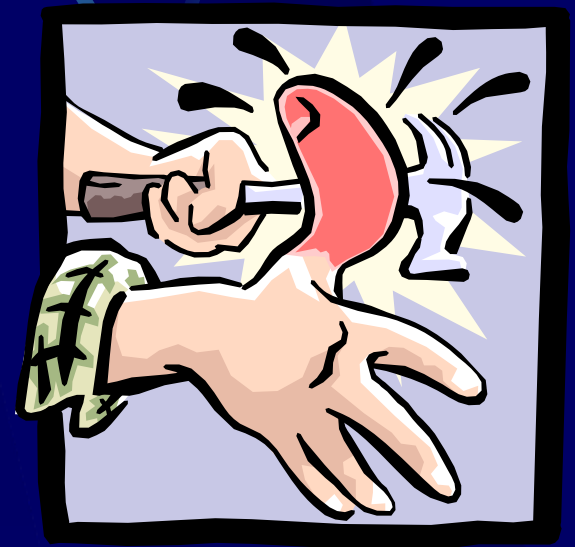
Scientific *dishonesty, misconduct & fraud*

Q.2.

● Why does it occur?



- Why is dishonesty  
in  
research inappropriate?



## Terminology

- 'Premed syndrome'?
- Gift, guest or honorary authorship?
- Ghost authorship?





Scientific *dishonesty, misconduct & fraud*

Q.5

## Terminology

- Slanted referencing?
- Redundant / dual publication?
- Salami slice publication?



- How many authors should you include in a paper and why?
- What are the minimum authorship requirements?

Scientific *dishonesty, misconduct & fraud*

A.1

- Piracy

deliberate exploitation of ideas  
without acknowledgement

- Plagiarism

copying of ideas, data or text  
without permission / acknowledgement

Scientific *dishonesty, misconduct & fraud*

A.1

- Fraud

deliberate deception

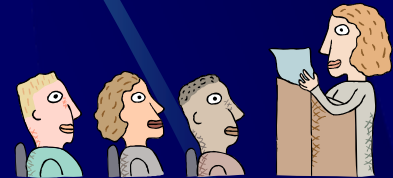
usually invention of data

(RCP)

Why does Scientific *dishonesty, misconduct & fraud* occur?

A.2

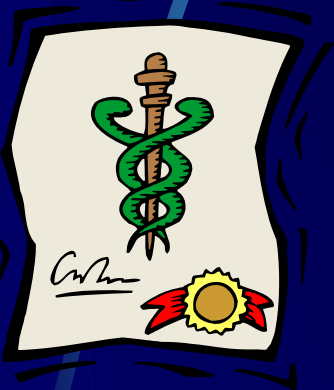
- Most authors not informed on ethics
- Not addressed in under / postgraduate education
- No formal guidance
- Word of mouth – good / bad role models



Why does Scientific *dishonesty, misconduct & fraud* occur?

A.2

- Measure of performance
- Funding input & research output
- Academic rewards system
- Clinical Governance / CPD
- Prevalence Seniors = Juniors



Why is Scientific *dishonesty, misconduct & fraud*  
*inappropriate?*

A.3

- Mislead direction of clinical research
- Wasted research funds , time & effort
- May influence dangerous interventions
- Encourages further deceitful behaviour
- Inspires a fraudulent work environment



## Terminology

### ‘Premed syndrome’

- Cheating in medical school
- Dishonesty during residency training







## Terminology

Gift, guest or honorary authorship

- Inclusion of authors , usually senior colleagues who have at most had a peripheral role.

## Terminology



### Ghost authorship

- Failing to include an author
- Generally perceived as deserving
- Satisfies acceptable authorship criteria

Scientific *dishonesty, misconduct & fraud*

A. 5

## Terminology

### Slanted referencing

- Disregard of unsupportive articles
- Selective application to substantiate discussion to establish evidence of originality



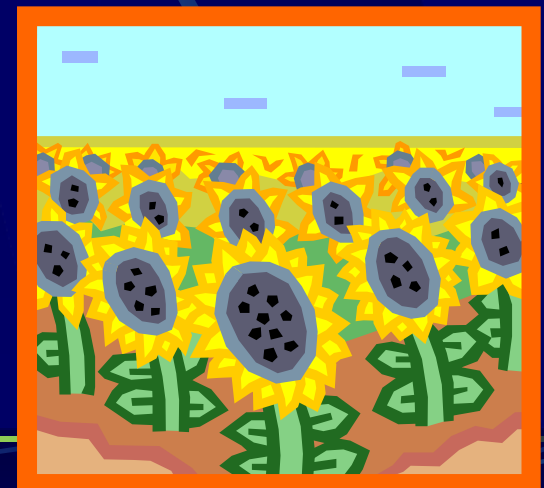
Scientific *dishonesty, misconduct & fraud*

A. 5

## Terminology

Redundant / dual publication

- Submitting same or similar article to different journals



## Terminology

### Salami slice publication

- Slicing of data into thinner and thinner slices
- > 1 publication from the same information
- Relatively common – seen in theses
- < 1/3 deliberate / to conceal previous work

To reduce Scientific *dishonesty, misconduct & fraud*

What are authorship criteria? Q. 6

- Disputes more frequent
- Contributed to creative process
- Preparation of manuscript
- Read final paper

Scientific *dishonesty, misconduct & fraud*

# Grey Zone!

- Sensible selection of data - suppression of inconvenient results
- Justifiable serial & redundant publication
- Appropriate / twisted statistics

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# Grey Zone!

- Fair quotation or plagiarism
- Slanted references
- Americans ignore everything non-US
- British ignore everything not in English



Scientific *dishonesty, misconduct & fraud*

# What else happens?

- Removal of data from scientific bio-bank
- Unauthorised publication - including superiors as authors without their knowledge or consent

Scientific *dishonesty, misconduct & fraud*

# What else happens?

- Exclusion of potential authors
- Inadequate citations with 'priority lifting'
- Inadequate agreements on access to research data for co-workers

Scientific *dishonesty, misconduct & fraud*

# What is duplication?

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# What is duplication?

- Publishing results of a single study in >1 journal
- Practice not uncommon
- Salami slice publication - parcelled out to different journals
- Vancouver rules - cannot be considered if submitted / published

Scientific *dishonesty, misconduct & fraud*

What is being done about it?

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## What is being done about it?

- COPE  
(Committee of Publication Ethics)
- OSTP  
(Office of Science and Technology Policy, USA)

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## What is being done about it?

- Nordic countries - National independent committee & High Court Judge
- Strong institutional guidelines for procedures, inquiry & investigation, reprisals, whistle-blowing
- Ethics committee

Scientific *dishonesty, misconduct & fraud*

# What is being done about it?

- European Law
- Courses in scientific practice & dishonesty
- Obligatory



# Publish or perish!

(Angell 1986, Ann Intern Med)

- Reduce offences / foster an environment
- Focus on individual researcher & faculty
- Informed on institutional policy
- Improve institutional diagnostic, therapeutic & preventative measures

# Publish or perish!

(Angell 1986, Ann Intern Med)

- Substance over volume :  
Ceiling on presentations & publications
- Editors not policemen
- More attention to misconduct / training
- Not a witch hunt - 'Innocent until proven .....

Scientific *dishonesty, misconduct & fraud*

At the end of the day!

- 'Scientists are human'
- 'the only ethical principle which has made science possible is that the truth shall be told all the time'
- 'Ethical publication will depend on the ethical investigator'