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‘Health(y) Science; increasing value, reducing waste’

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Does health research need a medical doctor

YES
Top cancer researcher is struck off

A leading researcher into innovative treatments for pancreatic cancer has been struck off the UK medical register for "gross and clear fabrication of research data."

Thorsten Wagner, who worked at Bart's Cancer Institute in London, was found guilty of 24 instances of misleading and dishonest conduct between 2012 and 2014.

He was found to have falsified data in grant applications to the Pancreatic Cancer Research Fund and Cancer Research UK.

As a paper published in Nature, in another paper which he submitted to Nature and a presentation to Cancer Research Techniques in London.

Wagner was also accused of grossly misleading a patient with pancreatic cancer. He was employed as a professor in 2013 after gaining wide experience of commissioning research programs involving several institutions.

A medical professor in Manchester said that he was one of many who were concerned about the quality of research on pancreatic cancer.

Concerns about his research began to surface in 2012 when one of his former colleagues raised questions about the source of data he had produced. This led to an internal investigation relating to two projects.

He initially denied wrongdoing but resigned with immediate effect when he was presented with evidence of misconduct, including the falsification of data and clinical trial results.

The tribunal heard that when he was asked if there was anything else the institute should know about, he replied, "Yes, there is."

This is a comprehensive investigation conducted by an independent panel of scientific misconduct.

In the same paper, he was found to have falsified data and made dishonest statements. The tribunal said that he was about the last to be struck off in this case, and he was the first to know this, the tribunal heard.

Richard Duley, the tribunal chairman, said that Wagner's behavior "represents a pattern of conduct featuring a propensity to fabricate data, cover up what he had done, and then disavow with an eye to self-preservation." Because of this, the tribunal concluded that he was "highly likely" to repeat his conduct.

LATEST ONLINE

- Choice of non-radiation treatment was "highly likely," says royal college.
- Australian doctors confirm "hotseat" treatment of prostate cancer is outdated.
From 2012 on

Science in Transition
Raising Public Awareness

ZonMw
Starting a debate within the scientific community
Science 2012: growing inconvenience

- Publication bias
- Fraud
- Data sharing
- Quality
- Societal impact
- Bibliometrics
- Mattheus – effect (priority setting in health research)
Intermezzo 1

2014

Lancet articles:

Research: increasing value, reducing waste

Reference to a 2009 study: 85% waste
Paul Glasziou and Iain Chalmers: Is 85% of health research really “wasted”?
14 Jan, 16 | by BMJ

Our estimate that 85% of all health research is being avoidably “wasted” [Chalmers & Glasziou, 2009] commonly elicits disbelief. Our own first reaction was similar: “That can’t be right?” Not only did 85% sound too much, but given that $200 billion per year is spent globally on health and medical research, it implied an annual waste of $170 billion. That amount ranks somewhere between the GDPs of Kuwait and Hungary. It seems a problem worthy of serious analysis and attention. But how can we estimate the waste?

Let’s break up the 85% figure by its components. The easiest fraction to understand is the fraction wasted by failure to publish completed research. We know from follow-up of registered clinical trials that about 50% are never published in full, a figure which varies little across countries, size of study, funding source, or phase of trial [Ross, 2012]. If the results of research are never made publicly accessible—to other researchers or to end-users—then they cannot contribute to knowledge. The time, effort, and funds invested in planning and conducting further research without access to this knowledge is incalculable.

Publication is one necessary, but insufficient, step in avoiding research waste. Published reports of research must also be sufficiently clear, complete, and accurate for others to interpret, use, or replicate the research correctly. But again, at least 50% of published reports do not meet these requirements [Glasziou, 2014]. Measured endpoints are often not reported, methods and analysis poorly explained, and interventions insufficiently described for others—researchers, health professionals and patients—to use. All these problems are avoidable, and hence represent a further “waste.”
Waste

- No publications (50% of all registered clinical trials)
- Accurate publications (50% are not)
- Systematic examination prior to new research (50% not)
Back to the main theme

Process

- Discussion paper
- Invitational conferences
- Commitment…. or no objections
Intermezzo 2

Specific example

Radboud University Medical Centre

Syrcle: Systematic Review Centre for Laboratory Animal Experimentation

Reducing waste in animal testing!
New animal tests: yes or no?

It’s in the air
Health Council of the Netherlands
Report about health research at the university medical centers, October 2016.

About: Quality
       Publication bias
       Indicator dominance
       Societal impact
       Integrity
Tasks of a research funder

- Initiate the debate
- Funding scientific research
- Review own procedures require data sharing
- Priority setting
Programme
Fostering Responsible Research Practices

Four pillars
1. Open call for research proposals
2. Audit of practices
3. Understanding of project lifecycles in research
4. National survey of scientific integrity
Call for project ideas

- 45 proposals
- 41 from universities
  - 2 from universities of applied sciences
  - 2 other institutions

Main emphasis by applicants on quality and integrity
National Survey on Research Integrity

- Web-based survey among all active scientists of Dutch Universities and UMCs
- Focus on occurrence and determinants of research misbehavior
- Attention to differences between academic ranks and disciplinary fields
- Validated questionnaires and solid identity protection of participants
- Advanced methods: randomized response technique + missingness by design
- Benchmarked results per institution to enable constructive discussion
- Focus group interviews and invitational conferences on survey results
- Recommendations for fostering Responsible Research Practices
Pilot programme replication

Studies in the fields of health research and social sciences

- Reproduction (existing data)
- Replication (new data)
  - existing research protocol
  - new research protocol