

Research Integrity Workshop: Shades of grey or black and white?

URONZ Conference 2019

Friday 6th September

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Dr Elizabeth Visser, Ethics and Integrity Manager

Responsible conduct of research (RCR)



Singapore Statement on Research Integrity

Preamble. The value and benefits of research are vitally dependent on the integrity of research. While there can be and are national and disciplinary differences in the way research is organized and conducted, there are also principles and professional responsibilities that are fundamental to the integrity of research wherever it is undertaken.

PRINCIPLES

Honesty in all aspects of research

Accountability in the conduct of research

Professional courtesy and fairness in working with others

Good stewardship of research on behalf of others

Developing a National Research Charter for Aotearoa New Zealand

A charter to set out the principles underpinning sound research practice in Aotearoa New Zealand is being developed.



EXPLORE | DISCOVER | SHARE



Reputational risk

Science

Harvard investigation finds fraudulent data in papers by heart researcher

SCIENCE

Cornell Announces "Phase Two" Of Brian Wansink Misconduct Investigation

Cornell is looking at whether its star professor's misconduct affected research funded by the federal government.

FEATURE

Fallout for co-authors

Alison McCook

• See all authors and affiliations

Science 26 Oct 2018:
Vol. 362, Issue 6413, pp. 394-395
DOI: 10.1126/science.362.6413.394-b

Article

Figures & Data

Info & Metrics

eLetters

PL

When a scientist has papers retracted for scientific misconduct, collaborators can suffer career damage.

Home / News & Opinion

Third Retraction for Harvard Cancer Biologist

The move follows two major corrections to a 2011 *Nature* paper, in which researchers demonstrated that a natural compound selectively kills cancer cells.

When Government-Backed 'Nudgers' Go Bad

Meet the people busting scientists who fake images in research papers



by VISHWAM SANKARAN — 5 days ago in SCIENCE

Retraction Watch

Tracking retractions as a window
into the scientific process

PAGES

[How you can support Retraction
Watch](#)

[Meet the Retraction Watch staff](#)

[About Adam Marcus](#)

[About Ivan Oransky](#)

[Privacy policy](#)

[Retraction Watch Database User
Guide](#)

[Retraction Watch Database
User Guide Appendix A: Fields](#)

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User Guide Appendix B:
Reasons](#)

[Retraction Watch Database
User Guide Appendix C: Arti-](#)

Category: australia retractions

An Australian university cleared a cancer researcher of misconduct. He's now retracted six papers.

The story of Levon
Khachigian's research is
a long and winding tale.

One place to start would
be in October 2009,
when a paper co-au-
thored by Khachigian —



[Follow](#)

The Retraction Watch Database
Please see this [user guide](#) before you get started

Author(s): Country(s):

Title:

Reason(s) for Retraction:

Subject(s): Article Type(s):

Journal:

Publisher:

Affiliation(s):

Notes:

URL:

[Clear Search](#)

Search

Original Paper

From Date: To:

PubMedID: mm/dd/yyyy

DOI:

Retraction or Other Notices

From Date: To:

PubMedID: mm/dd/yyyy

DOI:

Nature of Notice: Paywalled:

Retraction or Other Notices Title/Subject(s)/Journal --- Publisher/Affiliation(s)/Retraction Watch Post URL(s) 27 Item(s) Found	Reason(s)	Author(s)	Original Paper Date/PubMedID/DOI	Retraction or Other Notices Date/PubMedID/DOI	Article Type(s) Nature of Notice
Effects of Therapy on Religious Men Who Have Unwanted Same-Sex Attraction (HUM) Religion; (SOC) Psychology; (SOC) Sexual And Marital Therapy; <i>The Linacre Quarterly</i> --- <i>SAGE Publications</i> Southern California Seminary, El Cajon, CA, USA Whitehead Associates, Lower Hutt, Wellington, New Zealand	+Error in Analyses +Error in Methods +Unreliable Results	Paul L. Santero Neil E. Whitehead Dolores Ballesteros	07/23/2018 00000000 10.1177/0024363918788559	05/23/2019 00000000 10.1177/0024363919854842	Research Article Retraction
Safety and feasibility of transcranial magnetic stimulation as an exploratory assessment of corticospinal connectivity in infants after perinatal brain injury: an observational study (HSC) Medicine - Rehabilitation/Therapy; <i>Physical Therapy</i> --- <i>Oxford Academic</i> Department of Rehabilitation Medicine, University of Minnesota, MMC 388, 420 Delaware St SE, Minneapolis, MN 55455 (USA) Department of Rehabilitation Sciences, Hong Kong Polytechnic University, Kowloon, Hong Kong Department of Psychiatry, University of Minnesota Physical Therapy and Human Movement Sciences, Feinberg School of Medicine, Northwestern University Department of Pediatrics, University of Minnesota and Institute of Child Development, College of Education and Human Development, University of Minnesota Department of Exercise Sciences, University of Auckland, Auckland, New Zealand School of Public Health, Division of Biostatistics, University of Minnesota MSPT, Department of Rehabilitation Medicine, University of Minnesota http://retractionwatch.com/2019/03/11/journal-temporarily-withdraws-eight-papers-after-publisher-mistake/	+Error by Journal/Publisher +Notice - Limited or No Information +Temporary Removal	S.T. Nemanich C.Y. Chen M. Chen E. Zorn B. Mueller C. Peyton J.T. Elison J. Stinear R. Rao M. Georgieff J. Menk K. Rudser B. Gillick	02/26/2019 30806664 10.1093/ptj/pzz028	02/26/2019 30806664 10.1093/ptj/pzz028	Research Article Retraction
On two site-specific nitrite-sensing nanocomposites having a core-shell structure: Construction, characterization and sensing performance (PHY) Chemistry; (PHY) Crystallography/Spectroscopy; <i>Spectrochimica Acta Part A, Molecular and Biomolecular Spectroscopy</i> --- <i>Elsevier</i> College of Food Science and Pharmacy, Xinjiang Agricultural University, Urumqi 830052, China Department of Applied Science, University of Otago, Dunedin 9054, New Zealand Department of Food Science, University of Otago, Dunedin 9054, New Zealand	+Concerns/Issues About Authorship +Fake Peer Review +Investigation by Journal/Publisher	Muhetaer Kadeerhazi Azam Ali Alaa el Din Bekhit	08/18/2016 27569768 10.1016/j.saa.2016.08.034	09/25/2018 30266449 10.1016/j.saa.2018.09.016	Research Article Retraction
Inequities in coverage of smokefree space policies within the United States (HSC) Public Health and Safety; <i>BMC Public Health</i> --- <i>Springer - Biomed Central (BMC)</i> Department of Geography, Environment, and Spatial Sciences, Michigan State University, East Lansing, MI 48824, USA Department of Public Health, University of Otago, Wellington 6021, New Zealand	+Error in Data +Error in Results and/or Conclusions +Retract and Replace	Christopher Lowrie Amber L. Pearson George Thomson	05/16/2017 28511682 10.1186/s12889-017-4385-6	06/26/2018 29945576 10.1186/s12889-018-5716-y	Research Article Retraction

Research Integrity / Responsible Conduct of Research

- In NZ, the largest portion of research funding comes from Government funders, and thus from tax payers
- Funders and public must be able to trust research and researchers
- Research studies do not always deliver the expected results
- Research Governance is important to ensure institutional integrity
 - Embracing standards of excellence, trustworthiness and lawfulness
 - Demonstrate commitment to creating an environment that promotes responsible conduct of research
 - Codes of conduct assist in maintaining research integrity

Principles of Responsible Conduct of Research (RCR)

1. **Honesty** in all aspects of research cycle
2. **Rigour** in all aspects of research cycle
3. **Transparency** in declaring interests and reporting research
4. **Fairness** in the treatment of others
5. **Respect** for participants and wider community
6. **Recognition** of the rights of Indigenous people
7. **Accountability** for all aspects of research cycle
8. **Promotion** of responsible research practices

Paraphrased from the Australian Code for the Responsible Conduct of Research

Task 1: Rate the Principles – 5 mins

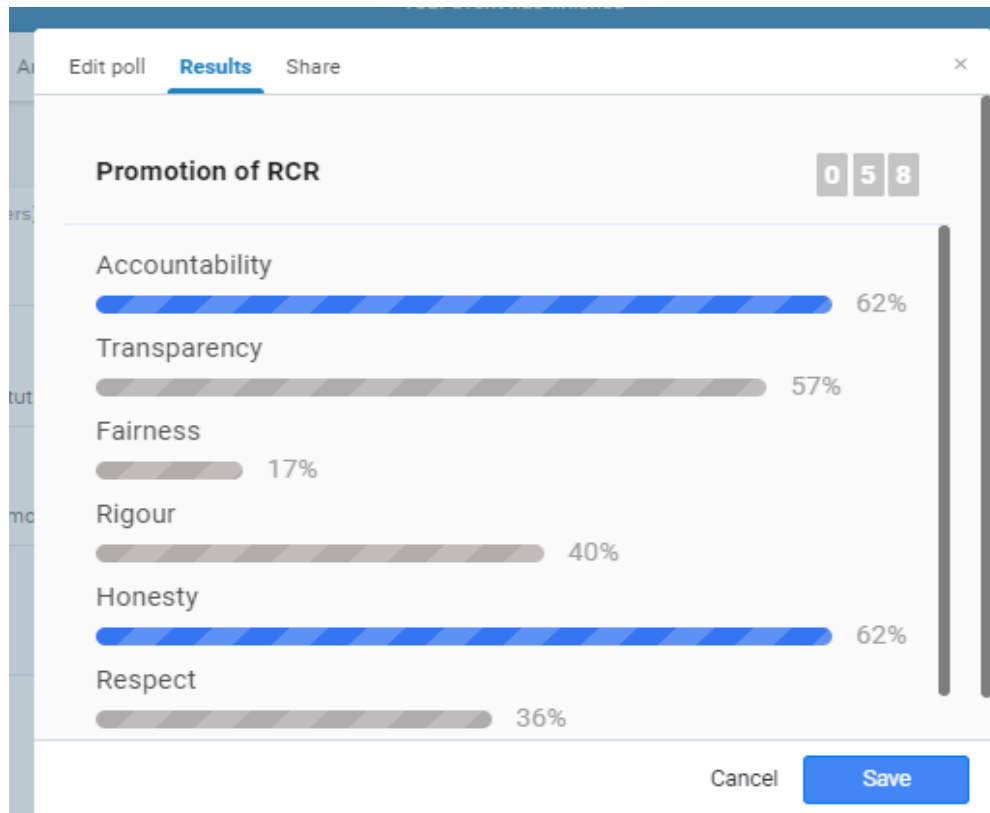
- Groups of three
- Discuss the principles
- Indicate what these principles mean to you

Use Slido: www.slido.com

Meeting no: # URONZ

Task 1: Rate the Principles – 5 mins

- Groups of three
- Discuss the principles
- Indicate which of these principles are most important



Responsibilities of researchers

- Support research integrity culture
- Provide guidance and mentorship
- Comply with the relevant laws and regulations
- Ensure the ethical principles are applied to human research.
- Engage with Indigenous peoples and respect their legal rights, customs and protocols
- Adopt appropriate methods and ensure that conclusions are justified
- Retain clear, accurate, secure and complete records
- Disseminate research findings responsibly, accurately and broadly.
- Disclose and manage conflicts of interest.
- Ensure correct authorship.
- Cite and acknowledge other relevant work appropriately and accurately.
- Participate in peer review in a fair and rigorous way.

Task 2: What are the responsibilities of institutions? – 5 mins

- Groups of three
- Discuss the specific responsibilities of institutions
- Add as many responsibilities as you can think of

Use Slido: www.slido.com

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Task 2: What are the responsibilities of institutions? – 5 mins

- Groups of three
- Discuss the specific responsibilities of institutions
- Add as many responsibilities as you can think of



When things go wrong - Research Misconduct

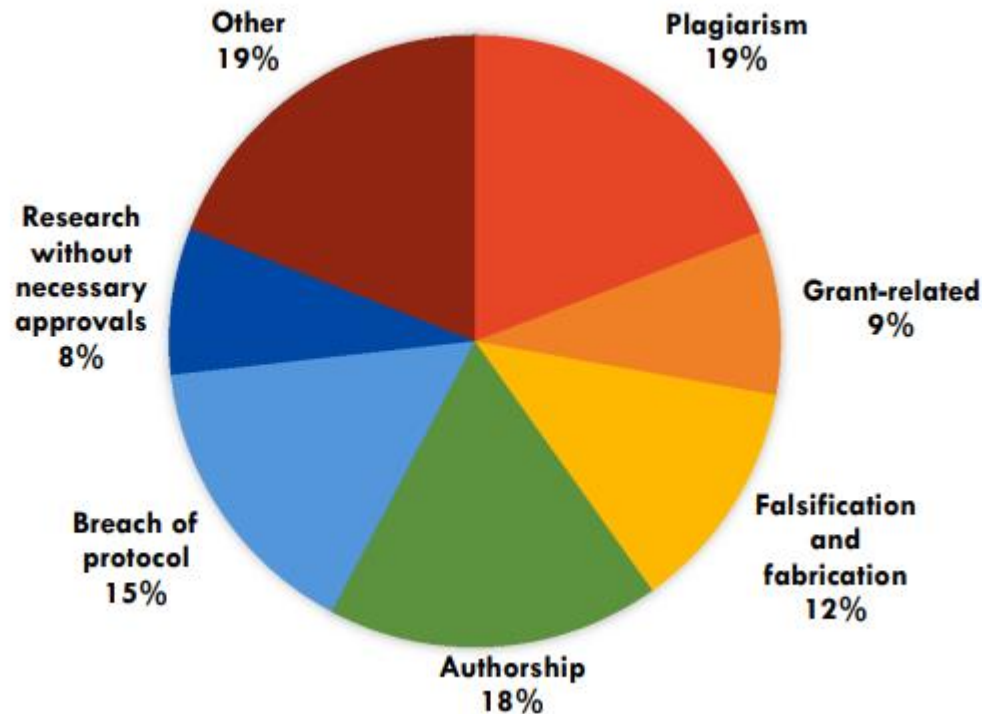
Research Misconduct:

- Falsification
- Fabrication
- Plagiarism
- Other forms of misconduct:
 - Conducting research without ethics approval
 - Failure to declare and manage a serious conflict of interest
 - Falsification or misrepresentation to obtain funding
 - Wilful concealment or falsification of research misconduct by others

Questionable Research Practices (QRPs):

Behaviour that does not live up to the standards for responsible conduct but is not considered serious enough to be research misconduct

Categories of issues managed by GO8 Research Integrity Offices in Australia: 2014-2017



The University of Sydney

R Halligan, University of Sydney, Presentation at 6th World Conference on Research Integrity, 4 June 2019

QRPs: Ethical Shades of Gray

Research practice	Data-related	Publication-related	Personal behaviour	Financial
<ul style="list-style-type: none"> •Poor research design •Using inappropriate (harmful or dangerous) research methods •Experimental, analytical or computational errors 	<ul style="list-style-type: none"> •Not preserving primary data •Data dredging •Poor data management and/or storage •P-Hacking •Withholding data from the research community 	<ul style="list-style-type: none"> •Claiming undeserved authorship •Biased reviewing •Denying authorship to contributors •Artificially proliferating publications •Failure to correct the publication record 	<ul style="list-style-type: none"> •Inadequate leadership/mentoring of next generation of researchers and scholars •Inappropriate personal behavior •Harassment •Insensitivity to social or cultural norms 	<ul style="list-style-type: none"> •Peer review abuse •Non-disclosure of a conflict of interest •Misrepresentation of credentials •Misuse of research funds for unauthorised purchase or for personal gain

Task 3: Which of these do you think are the most common QRPs? – 5 mins

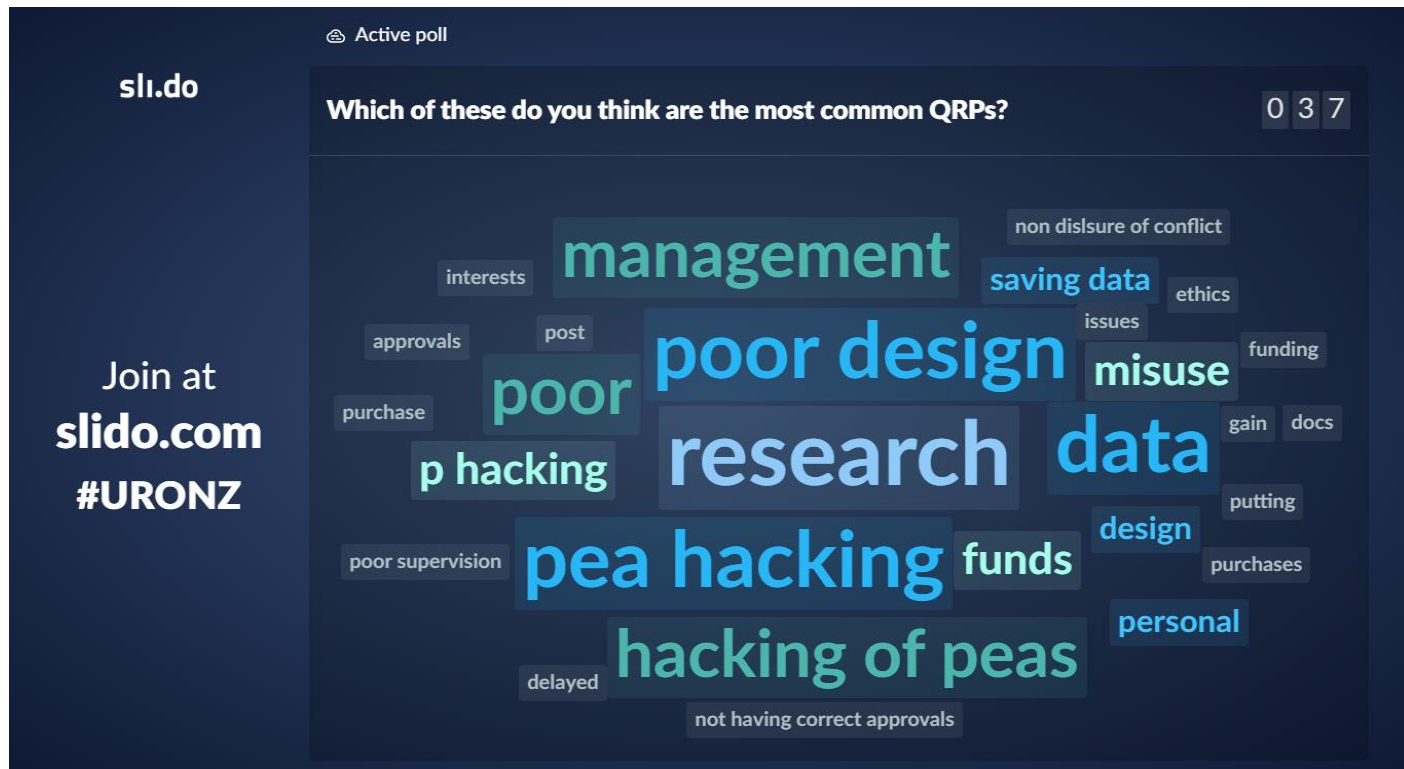
- Groups of three
- Discuss the QRPs
- Rate the 3 most common via Slido:

www.slido.com

Meeting no: # URONZ

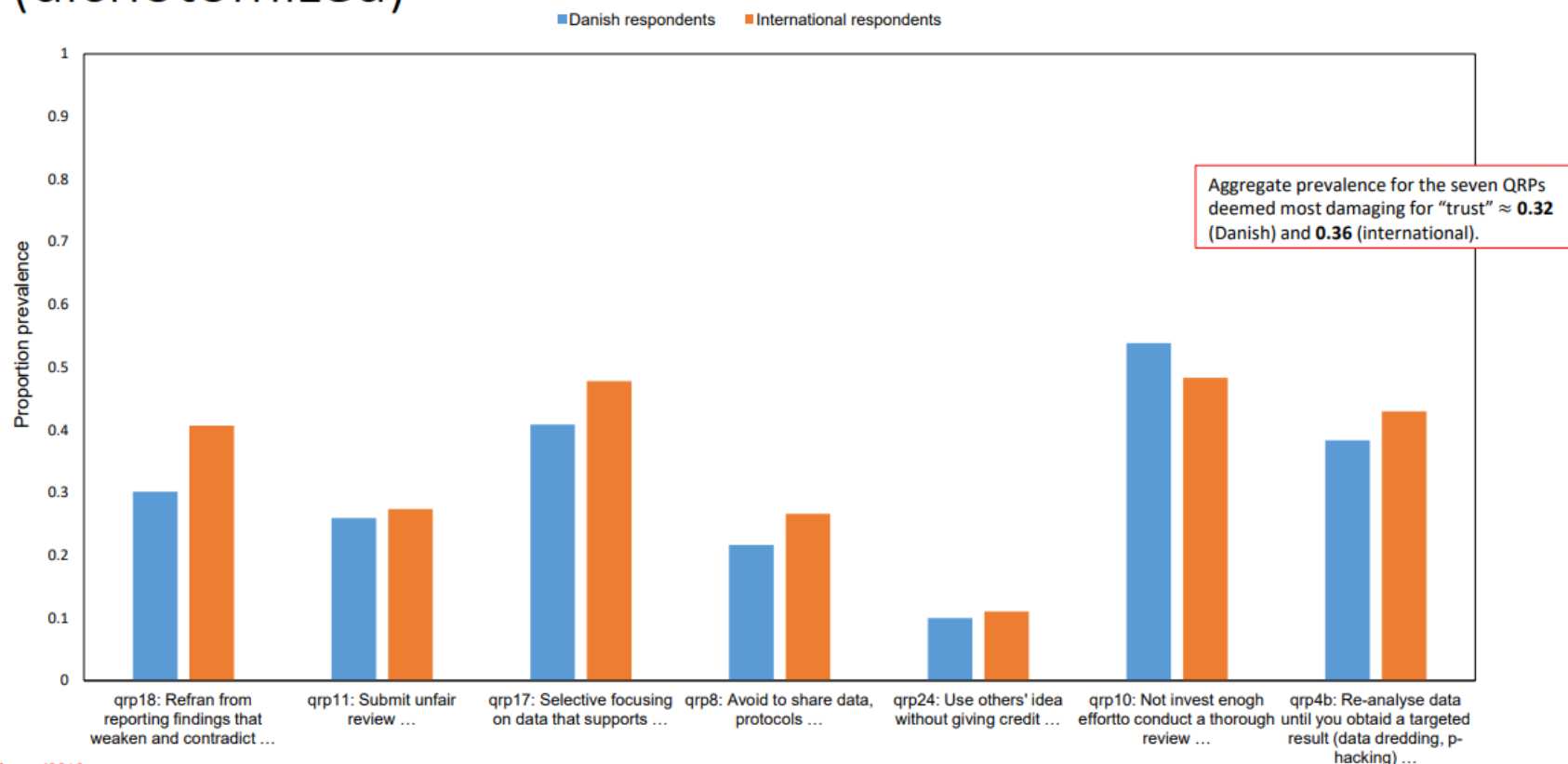
Task 3: Which of these do you think are the most common QRPs? – 5 mins

- Groups of three
- Discuss the QRPs
- Rate the 3 most common via Slido:



QRPs

Seven QRPs deemed most damaging for “trust”
(dichotomized)



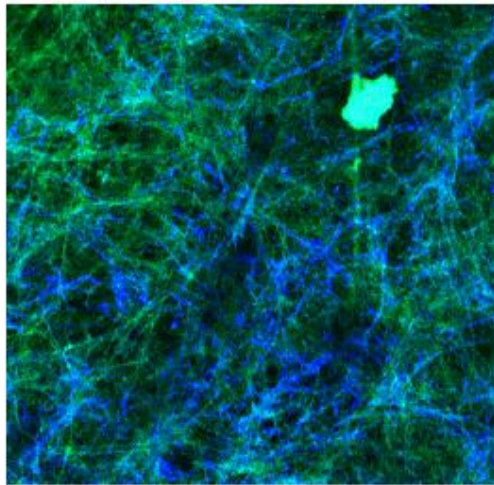
u.dk, wcricri2019

(J Schneider, Aarhus University, Denmark, presentation at 6th WCRI, June 2019)

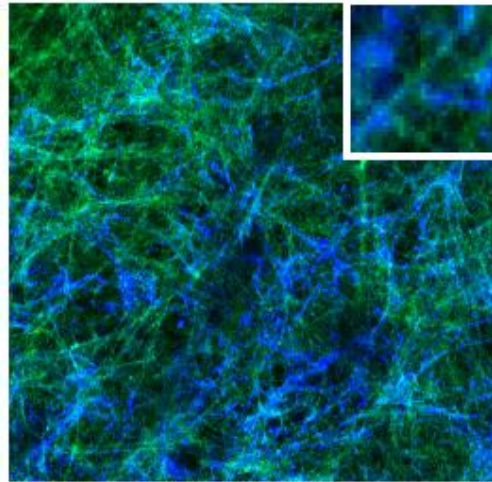
Current research environment

- Pressure to publish
- Pressure to obtain funding
- Open science (open access, open data)
- Predatory journals
- Predatory conferences

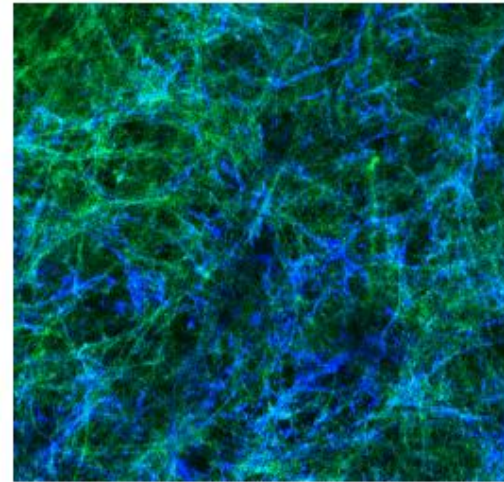
Dr S knows the best fluorescence images of her protein often have an unexplained bright blob of material that looks like junk and will be distracting to readers. She debates what to do



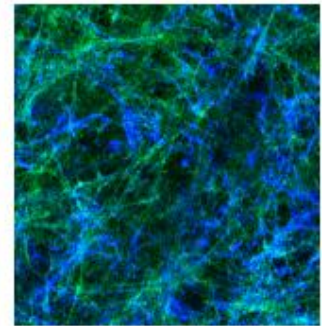
Original with "junk"



Covered up by inset



"Fixed" with Photoshop



Cropped out

Providing support to researchers

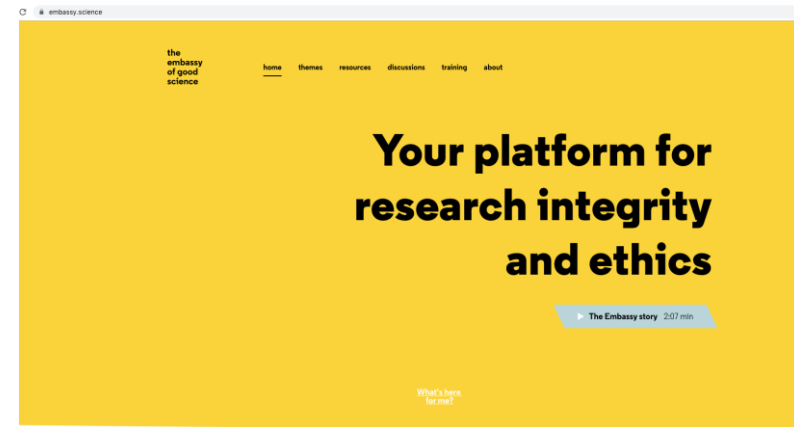
- Principle vs action
 - Transparency – Open Science
 - Rigour – Electronic lab books
 - Honesty – Data reporting
 - Fairness – Authorship agreements
 - Respect – Human/animal ethics processes
 - Recognition – Engaging with Mātauranga Māori
 - Accountability – Financial management
 - Promoting RCR – Mentoring

Providing support to researchers

Resources

— Embassy of Good Science:

- to promote research integrity
- open to anyone willing to learn or support others in fostering understanding and awareness around Good Science.
- community of researchers can gather to discuss 'hot topics', share knowledge, and find guidance and support to perform science responsibly and with integrity
- collaboratively map the laws, policies and guidelines informing good practices and highlight relevant cases
- support educators to develop training on research integrity and ethics



Providing support to researchers

- **Dr M says “I get so many invitations to attend conferences – which ones do I choose?”**
- **Predatory conferences:**
 - Exist to make money from unsuspecting researchers
 - Money comes from registration fees and hotel accommodation kickbacks
 - Healthy profit by running a number of conferences at the same time (share hotel, registration desks, etc.)
 - No quality control
 - Give themselves grand names : “Global” and “International”
 - Pretend to be a scientific society: American Academy of Sciences (American Academy of Arts and Science is real)

Providing support for researchers: Predatory conferences

- <https://thinkcheckattend.org>

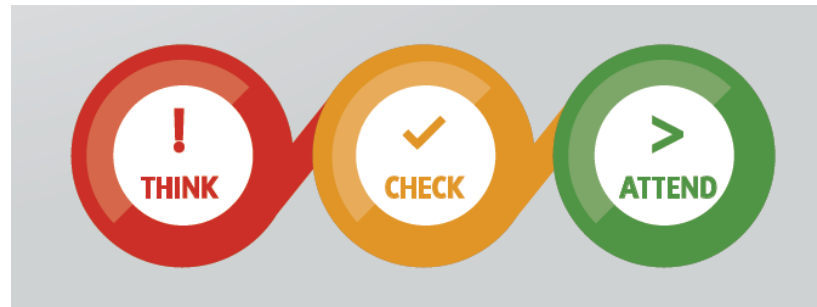


Check List

- ✓ **Organizers & Sponsors**
 - Are you aware of the society or the association organizing this conference?
 - Can you easily identify the venue of the conference?
 - Is it the first time this conference has been held?
 - Have you or your colleagues attended this conference before?
 - Is it clear what fees will be charged (conference fee, registration fees, ...) and if these will be waived if you are accepted as a speaker?
 - Are any sponsors involved in the conference?
 - Are you aware of any of them, especially with industry-related fields such as Engineering & Biomedical research?
 - Did you check the conference website? Can you find all the information presented in a proper way such as the (attendance fees, submission date, conference date, editorial committee, program details, venue)?
 - Have you read any papers from this conference proceedings before?
- ✓ **Agenda & Editorial Committee**
 - Is there clear information about the timeline and the agenda for the conference?
 - Do the scope and objectives of the conference fit your field and core interest or not?
 - Have you heard of the Keynote speakers?
 - Is the Editorial Committee listed on the website?
 - Have you heard of the Editorial Committee members before?
 - Is the Committee clear about the editorial control over presentations and the type of peer-review it uses?
- ✓ **Conference Proceedings**
 - Is the Organizing Committee clear about where the proceedings will be published?
 - Does the conference make it clear which indexing services it can guarantee published proceedings and to which indexes it will submit the proceedings for evaluation?
 - Is the publisher of the proceedings a member of a recognized industry initiative such as COPE, DOAJ, OASPA?
 - Refer also to Think. Check. Submit. check list for more details about publishing in the right journal at <http://thinkchecksubmit.org/check/>.



Think. Check. Attend. is an international initiative that aims to guide and assist researchers and scholars when choosing trusted conferences to attend and to present their research at. The initiative has been introduced by Knowledge E



Providing support for researchers

- **Dr K says “There is an invitation in my Inbox to publish – it looks so easy to get in”**
- Predatory publishers - Predatory publishers abuse the open access author-pays model for their own profit.
- Excessive publication fees, but may hide their fees or charges until after they received the manuscript
- Provide little or no peer review or editorial oversight
- Fake impact factors
- Publication process not made clear

Providing support for researchers: Predatory publications



If you can answer 'yes' to most or all of the questions on the list.

Complete the check list and submit your article only if you are happy you can answer 'yes' to most or all of the questions.

- You need to be confident your chosen journal will have a suitable profile among your peers to enhance your reputation and your chance of gaining citations.
- Publishing in the right journal for your research will raise your professional profile, and help you progress in your career.
- Your paper should be indexed or archived and be easily discoverable.
- You should expect a professional publishing experience where your work is reviewed and edited.
- Only then should you submit your article.

<https://thinkchecksubmit.org> – coalition of scholarly communications in response to discussions about deceptive publishing