

# Optimizing the behaviors of scientists and biomedical journal editors: can journalology help?

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Centre for Implementation Research launch

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uOttawa

L'Université canadienne  
Canada's university



Ottawa Hospital  
**Research Institute**  
**Institut de recherche**  
de l'Hôpital d'Ottawa

# Disclosures of interest

- Editorial board member of several higher quality journals
- Advisory board member, International Congress on Peer Review and Biomedical Publication
- Member of REWARD Alliance
- Member of the EQUATOR Network's executive group
- Wishing I had funding to disclose!

# Outline of talk

- Journalology
- Quality of publications
- Competence of scientific editors
- Publishing in very low quality journals

# Journalology

- What we publish, how we publish, and what gets published;
- Journals and how they operate;
- Editors and peer reviewers;
- Publication metrics, such as journal impact factor;
- Publication models, such as Open Access;
- How we assess science and scientists.

# What do we know about the quality of publications?

**67**

TRIALS CHECKED  
TO DATE

**9**

TRIALS WERE  
PERFECT

**301**

OUTCOMES NOT  
REPORTED

**357**

NEW OUTCOMES  
SILENTLY ADDED

On average, each trial reported just 62.0% of its specified outcomes. And on average, each trial silently added 5.3 new outcomes.

**58**

LETTERS SENT

**6**

LETTERS  
PUBLISHED

**31**

LETTERS  
UNPUBLISHED  
AFTER 4 WEEKS

**16**

LETTERS  
REJECTED BY  
EDITOR

- This is not the optimal way to instil confidence in readers, provide value for money to funders, or ensure the public can trust the research record
- Expensive
  - Third trillion dollars
- Avoidable problems

# THE LANCET

Research: increasing value, reducing waste - January, 2014

www.thelancet.com

"By ensuring that efforts are infused with rigour from start to finish, the research community might protect itself from the sophistry of politicians, disentangle the conflicted motivations of capital and science, and secure real value for money for charitable givers and taxpayers through increased value and reduced waste."

Research: increasing value, reducing waste

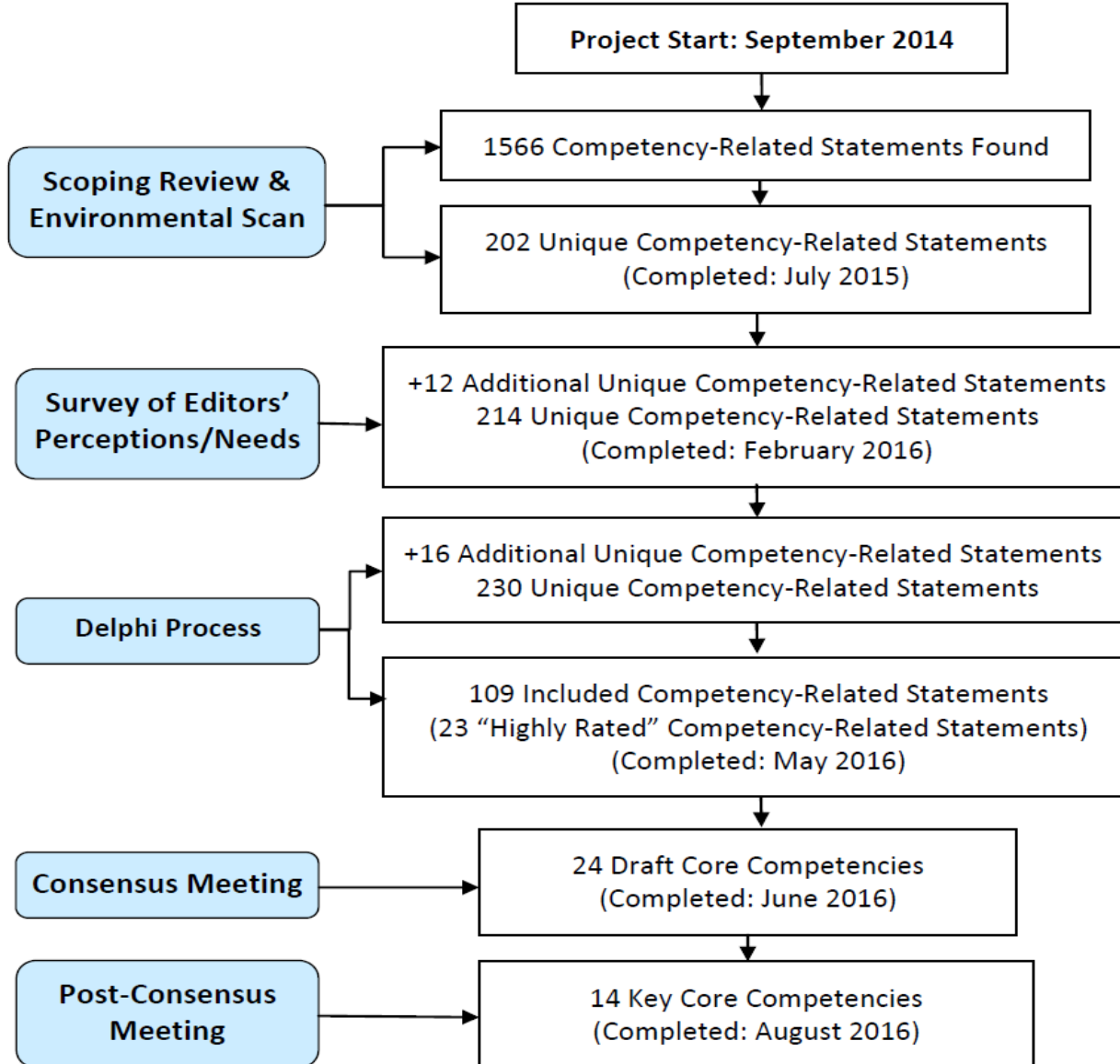
"Our belief is that research funders, scientific societies, school and university teachers, professional medical associations, and scientific publishers (and their editors) can use this Series as an opportunity to examine more forensically why they are doing what they do...and whether they are getting the most value for the time and money invested in science."

# Core competencies – scientific editors

Asia Pacific Association of Medical Journal Editors (APAME)
BioMed Central (BMC)
British Medical Journal (BMJ)
Canadian Medical Association Journal (CMAJ)
China Medical Tribune (CMT)
Cochrane
Committee on Publication Ethics (COPE)
Council of Science Editors (CSE)
Elsevier
European Association of Science Editors (EASE)
Nepal Association for Medical Editors (NAME)
Philippine Association of Medical Journal Editors (PAMJE)
World Association of Medical Editors (WAME)
World Health Organization (WHO)



# Core competencies – editors



# Core competencies – editors

- **Editor qualities and skills**
  - Practice lifelong learning related to their role as an editor and within their area(s) of expertise
- **Publication ethics and research integrity**
  - Identify and uphold the principles of ethical research involving humans and animals when appraising manuscripts
- **Editorial principles and processes**
  - Apply best practices for research and other manuscript presentation when evaluating and requesting revision of manuscripts

# Publishing in very low quality journals

ILLUSTRATION BY DAVID PARKINS



<https://osf.io/r2gi6/>

Stop this waste of people,  
animals and money

# High level overview of results

- Lots of participants and animals included in predatory publications
  - > 2 millions people; > 8000 animals
- All types of research are published in these journals
  - RCTs, quasi-experimental, observational studies, pre-clinical
- Ethics approval reported
  - 40%
- Corresponding authors coming from all over the world
  - 57% from higher-income or upper middle income countries
- Prestigious institutions are included
  - Harvard, uTexas, Mayo Clinic, OHRI, uOttawa
- Of the articles reporting funding, NIH was the most prevalent
  - Canada was not immune!
- Quality of reporting – disturbingly bad

# How stakeholders can respond to the rise of very low quality journals

- Starve them of manuscripts
  - Academic institutions/librarians
  - Funders
  - Journals
  - Authors
  - Regulators
  - Patients/Public

**Table 1 | Proposed stakeholder actions to prevent completed research from reaching predatory journals**

Stakeholder	Direct consequences of predatory publishing	Actions to prevent predatory publishing	Benefits of publishing in legitimate journals
Researchers	<ul style="list-style-type: none"> <li>Deceived into publishing in substandard outlets</li> <li>Integrity/credibility of research may be questioned</li> <li>Potentially harmful to reputation and career if detected</li> <li>Little or no dissemination or uptake</li> </ul>	<ul style="list-style-type: none"> <li>Learn 'red flags' of predatory journals/publishers<sup>3</sup></li> <li>Engage with and promote the Think, Check, Submit campaign (<a href="http://thinkchecksubmit.org">http://thinkchecksubmit.org</a>)</li> <li>Before submission check whether journal is a member of COPE (<a href="http://publicationethics.org">http://publicationethics.org</a>) and whether the open access journal is listed in the DOAJ (<a href="https://doaj.org">https://doaj.org</a>)</li> </ul>	<ul style="list-style-type: none"> <li>Builds/maintains credibility</li> <li>Research is peer reviewed</li> <li>Research can be consistently found for dissemination to target readers/audiences</li> <li>Research can be built on in future research</li> <li>Improves impact and metrics</li> </ul>
Academic institutions and academic libraries	<ul style="list-style-type: none"> <li>Potentially harmful to institutional reputation/credibility, if detected</li> <li>May unknowingly count predatory publications towards promotion/tenure</li> </ul>	<ul style="list-style-type: none"> <li>Ensure institutional libraries offer researcher education and support on open access</li> <li>Provide mandatory training to graduate students, researchers and information specialists/librarians on best publishing practices, including how to select a journal</li> <li>Develop and enforce policies on expected standards of publishing</li> <li>Value and reward good publishing practice</li> </ul>	<ul style="list-style-type: none"> <li>Builds/maintains institutional credibility</li> <li>Facilitates/promotes researcher responsibility for publishing decisions</li> <li>Ensures distribution of rewards (for example, promotion/tenure) based on ethical and transparent publishing practices</li> </ul>
Funders	<ul style="list-style-type: none"> <li>Poor use of scarce resources</li> <li>Harmful to reputation/credibility, if detected</li> <li>May unknowingly count predatory publications towards funding</li> <li>Little or no dissemination/uptake of funded research</li> </ul>	<ul style="list-style-type: none"> <li>Develop policies on expected standards of publishing for funded research</li> <li>Monitor and enforce policies on journal publication standards</li> </ul>	<ul style="list-style-type: none"> <li>Ensures funding is invested wisely</li> <li>Ensures dissemination of research through publication</li> </ul>
Journals/publishers	<ul style="list-style-type: none"> <li>Researcher confusion about legitimate open access journals and predatory journals</li> <li>Journals lose revenues, either through lost APCs or access/subscription fees</li> <li>Citations from non-indexed journals will be missed by bibliometric calculators</li> <li>Citations to non-indexed research not vetted by peer review may harm credibility</li> </ul>	<ul style="list-style-type: none"> <li>Offer an open access publishing option</li> <li>For open access journals, apply to be indexed in the DOAJ</li> <li>Re-evaluate eligibility criteria for APC waivers (not all high-income authors have access to funds to pay for APCs)</li> <li>Follow best-practice journal standards</li> <li>Increase transparency and provide information about journal operations and the peer review process to readers</li> </ul>	<ul style="list-style-type: none"> <li>Improves publisher and journal credibility</li> <li>Journals are recognized as following best-practice standards</li> </ul>
Regulators/research ethics boards	<ul style="list-style-type: none"> <li>Research published in non-identifiable sources does not contribute to science</li> <li>Unethical/unfair to humans and animals participating in research</li> </ul>	<ul style="list-style-type: none"> <li>Require and review research dissemination and publication plans</li> <li>Monitor publishing and reporting practices for completed research through audit and feedback</li> </ul>	<ul style="list-style-type: none"> <li>Obliges researchers to carefully consider publication plans before carrying out research studies</li> <li>Ensures that completed, published studies include adequate information about ethics approvals and practices</li> </ul>
Public/patients	<ul style="list-style-type: none"> <li>Waste of patient data, time and effort</li> <li>Efforts may not contribute to science</li> </ul>	<ul style="list-style-type: none"> <li>Draw public attention to this matter</li> <li>Join a patient advocacy group</li> <li>Contribute to media/social media</li> <li>Inform local government officials of the personal consequences to you</li> </ul>	<ul style="list-style-type: none"> <li>Research is identifiable and able to inform treatment outcomes and decisions</li> </ul>

**Table 1 | Proposed stakeholder actions to prevent completed research from reaching predatory journals**

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<https://osf.io/trcy3/>



**OTTAWA HOSPITAL RESEARCH INSTITUTE  
PUBLICATION PRACTICE GUIDELINES**

Recommended by the Senior Management Committee  
September 1, 2017

*These guidelines are largely based on the 'Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals' (accessed Fall 2015) produced by the International Committee of Medical Journal Editors (ICMJE). The most recent version of these recommendations is available online at [www.icmje.org](http://www.icmje.org).*

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## Report on a pilot project to introduce a publications officer

Kelly D. Cobey PhD MRes, James Galipeau PhD MA, Larissa Shamseer MSc, David Moher PhD MSc

**C**oncerns about deficiencies in the reporting quality of biomedical research have been expressed for more than three decades.<sup>1</sup> In spite of this, articles continue to pass through editorial and peer review pro-

cesses. We have perceived a genuine appetite for publications outreach, with a particular interest in topics that include authorship policies, predatory journals, peer

**Competing interests:** Kelly Cobey is the publications officer at the Ottawa Hospital Research Institute. No other competing interests were declared.



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The Ottawa  
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Inspired by research  
Driven by compassion. Inspiré par la recherche.  
Guidé par la compassion.



[CLICK HERE TO VIEW THE COURSE PROGRAM](#)

**March 28 & 29, 2017: Aimed primarily at researchers**  
University of Ottawa, Lees Campus, Room C204  
9:00am - 5:00pm

OR

**March 31 & April 1, 2017: Aimed primarily at physicians who conduct research**  
The Ottawa Hospital, Civic Campus, Kaminski Room  
9:00am - 5:00pm

#### Register today!

##### Course Description

Many physicians interested in research will go on to become authors, peer reviewers, and scientific editors of research journals. However, the literature indicates that they are likely to be unprepared for any of these roles.

The Introduction to Publication Science course adopts a comprehensive, evidence-based approach to the publication process by introducing participants to the principles of publication science (i.e., Journalology). A course in Journalology exposes participants to the wide range of topics, practices, and products that are a part of the publication process, including learning about:

- How biomedical journals operate
- Reporting guidelines
- Manuscript writing
- Getting published
- Manuscript peer review
- Publication models
- Publication metrics
- Science in the media
- Increasing the value of biomedical research
- Publication ethics and research integrity
- Publication bias and consequences

Participants will gain an understanding of the myriad factors that can influence and impact the integrity of the scientific record and access strategies and resources to deal with them.

##### Accreditation

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification program of the Royal College of Physicians and Surgeons of Canada for 13.0 hours. This program has been reviewed and approved by the University of Ottawa, Office of Continuing Professional Development.

This Group Learning program meets the certification criteria of the College of Family Physicians of Canada and has been certified by the University of Ottawa's Office of Continuing Professional Development for up to 13.0 Mainpro+ credits.

[CLICK HERE TO REGISTER](#)

##### HOW TO REGISTER

To create an account, please follow the simple steps below:

1. Click on the following link: <https://eventacad.med.uottawa.ca/>
2. Click on "Create a New Account"
- NOTE: Pre-existing CPO registration logins and uOttawa logins will not be valid
3. Once your account is created you will receive an email confirmation
4. Once you are logged in, click on Programs and search for "Bethune"
5. Click on the event name, and then click "Register Now"

##### For Further Information:

TEL: 613-761-4480 ext. 1 | FAX: 613-761-5262 | EMAIL: [cpd@toh.on.ca](mailto:cpd@toh.on.ca)

Visit our website at: <http://www.med.uottawa.ca/CPD> for more information!

# Teaching journalology across the university

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# And country



## EQUATOR Canada Publication School

**\*Now accepting applications\***

**Course date: April 30<sup>th</sup> – May 1<sup>st</sup>, 2018**

**Toronto, Ontario**

**A course designed for biomedical researchers  
of all career stages and subspecialties**

This 2-day intensive and interactive course will introduce participants to the principles and practice of publication science. Participants will gain an understanding of the myriad of factors that can influence and impact the integrity of the scientific record and access strategies and resources to deal with them.

*Topics will include:*

- How to navigate peer review and be published
- How to select a journal
- How biomedical journals operate
- How to choose and use reporting guidelines
- Publication models and publication metrics
- Publication ethics and research integrity
- Publication bias and its consequences
- Life after publication: Science in the media
- Engaging patients from research design to publication

**5 scholarships valued at  
\$750 CAD each are  
available for trainees  
Apply by March 2<sup>nd</sup>, 2018**

Course tutors include reporting guideline developers, journal editors, and researchers Drs. Andrea Tricco, Martin Offringa, David Moher, Rick Glazier, An-Wen Chan, Kelly Cobey & Nancy Butcher.

**REGISTRATION IS LIMITED. Please submit your application to attend this course at <http://www.cvent.com/d/1tqcnv>. Applicants will be notified by email within one week if their application has been accepted.**

*Registration fee: \$150 (\$75 for trainees)*

*Course location: Peter Gilgan Centre for Research & Learning, The Hospital for Sick Children*

*Contact: [achiara@sickkids.ca](mailto:achiara@sickkids.ca)*



Thank you😊

