How to Get Your Work Published and the Peer Review Process



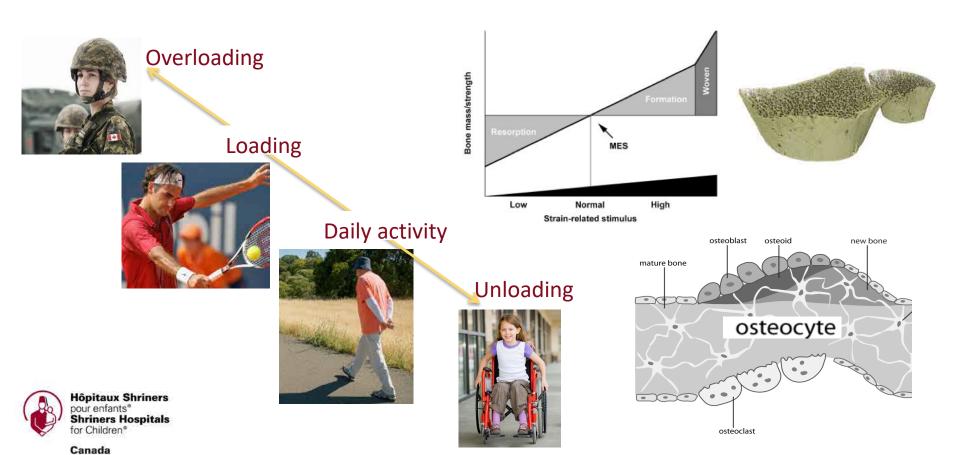




Bettina Willie, PhD Professor, Assoc. Dean of Res. & Grad. Ed. Faculty of Dental Medicine & Oral Health Sciences McGill University April 4, 2025

Skeletal mechanobiology

Mechanical regulation of bone (re)modeling and regeneration



Outline

- How journal select papers: <u>citations</u>
- Find the best journal
- Manuscript Content & Style
- Getting through the gatekeepers
- Revising and responding
- Promoting your paper



Citations & Impact factor

The New England Journal of Medicine 79.258

Lancet 53.254

Chemical Reviews 52.613

JAMA - Journal of American Medical Association 47.661

Nature Reviews Cancer 42.784

Nature Reviews Immunology 41.982

Nature 41.577

Nature Reviews Genetics 41.465

Science 41.058

Chemical Society Reviews 40.182

Nature Materials 39.235



Impact factor

- Invented in 1965
- Issued by Thompson Reuters every summer
- Used as indicator of the prestige of a journal
- Average number of citations (by indexed publications) received per paper published in that journal during the 2 preceding years
- IF can be inflated by review articles



Citations & Impact factor

Most important factor influencing editorial decision to publish your paper is:

Conceptual advancement, highly significant, impactful, novel findings

Translation= Will it be highly cited?

Scientific Reports: "technically sound and scientifically valid... The importance of an article is determined by its readership after publication."

Citations & Impact factor

Rejection rates for a sample of 570 journals with impact factors

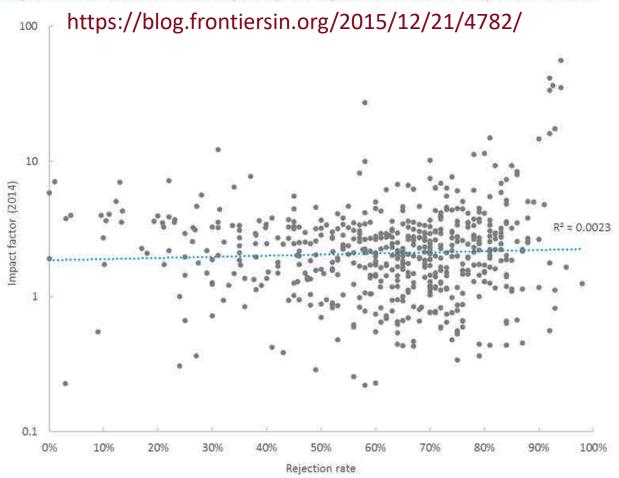


Figure 1: 570 journals with publicly stated rejection rates (for sources, see below and to see complete data, click here). Impact factors from Thomson Reuters Journal Citation Reports (2014). (Y-axis is on a Log scale).

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Find the best journal

- Reach most relevant audience
- Peer-reviewed published journals
- Impact Factor: 95% rejection rates for highest impact journals
- Open access journals
- Avoid predatory journals
- Consult with university librarian (Jingjing Li: jing.li19@mcgill.ca)



https://journalfinder.wiley.com/search?type=match

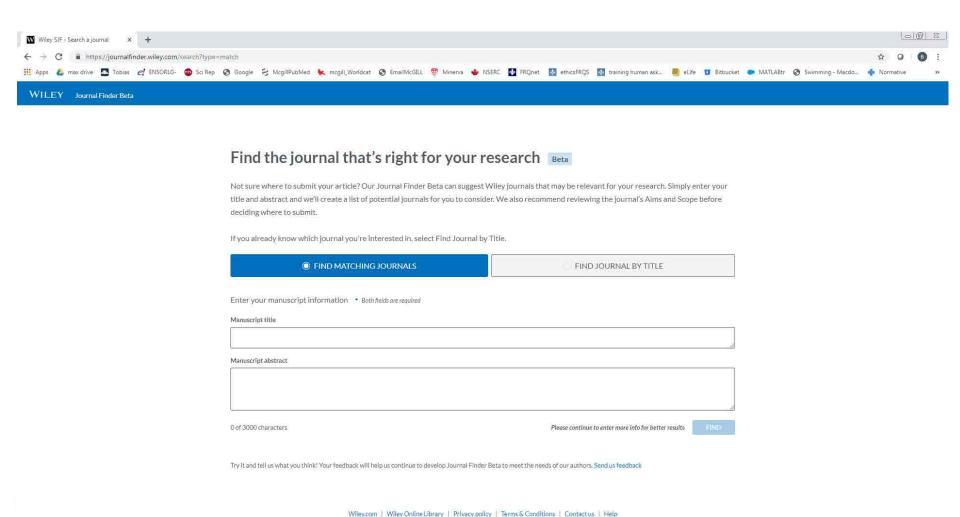


Avoid Predatory Journals

- Consult with university librarian (Jingjing Li: jing.li19@mcgill.ca)
- https://thinkchecksubmit.org/- check list
- https://ulrichsweb-serialssolutions-com.proxy3.library.mcgill.ca/ -Database for checking if a journal is peer-reviewed and where it is indexed.
- https://doaj.org/
- https://www.mcgill.ca/library/services/open-access/legitimate-journalslegitimate open access journals
- If you have already submitted to a predatory journal-what to do?
 - Do not pay publication fee
 - Do not sign copyright agreement
 - Write to journal to withdraw/ retract submitted/accepted manuscript
 - Publish responsibly in future



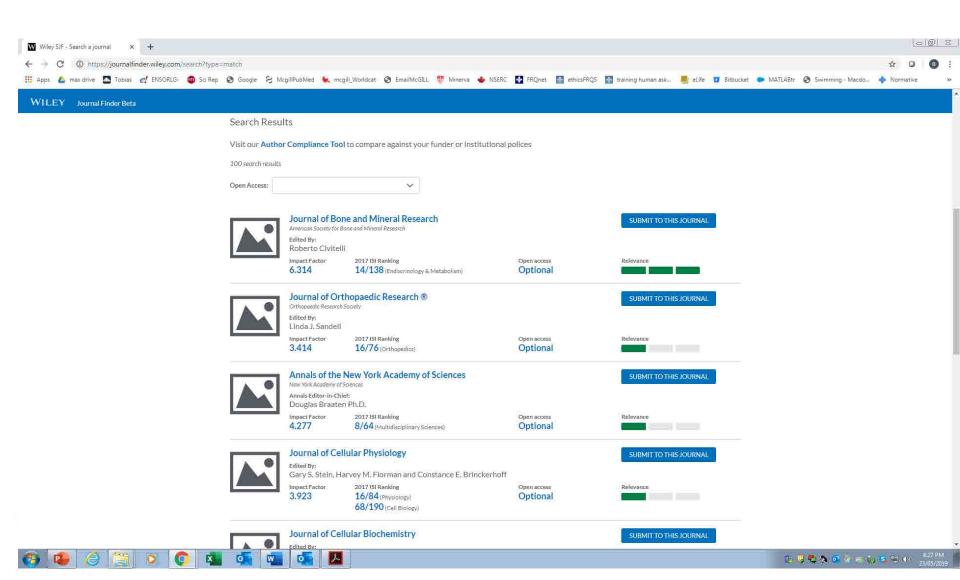
Find the best journal



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Finding the best journal



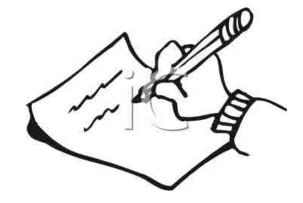
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Before you draft your manuscript

- When you design your experiment/study think about how each paper would look like
- Identify authors and roles
- What analyses do I need to do to test my hypothesis?
- How will your results be displayed in Figures and Tables





Drafting your manuscript

- Know your audience, pick an appropriate journal
- Create a compelling, clear and concise story
- Good <u>title</u>, <u>abstract</u>, <u>cover letter</u>, <u>figures</u>
- What is the most important result?
- Do I need to perform additional analyses to tell the story/test the hypothesis?
- Don't:
 - overstate your findings
 - ignore the work of others
 - hold back data





Manuscript Content & Style

- Content: conceptual advancement, novel findings
- Tell a compelling story
 - Well defined research questions & hypotheses
 - Sound study design and methodology
 - High quality data
 - Significance to field
 - No more than 3 key messages
 - Make it accessible to reader
- Well written



- Meaningful and accessible information
- Visually represent your findings
- Convey underlying message
- Consider alternatives to bar graphs

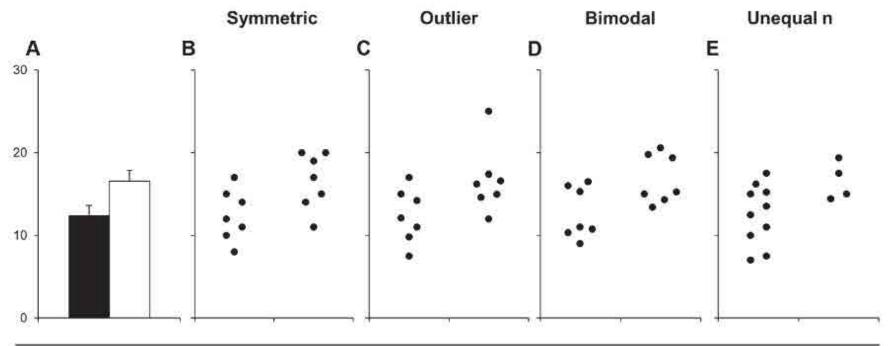




Alternatives to bar graphs

Many different datasets can lead to the same bar graph:

Weissgerber 2015



Test T-test: Equal var.	p value			
	0.035	0.050	0.026	0.063
T-test: Unequal var.	0.035	0.050	0.026	0.035
Wilcoxon	0.054	0.073	0.128	0.103

Information is beautiful.net

The MicrobeScope MICROBE TYPE PRIMARY TRANSMISSION METHOD INFO TREND SIZE O. Search.. · Fatality rate DEADLINESS •virus •bacterium •parasite airborne bites body fluids faecal-oral food sexual On Off On Off A A A ◆ Pneumonic Plaque untreated 100% ▲ ▲ Leishmaniasis visceral, untreated 90% 80% extremely deadly death likelu ▲ Echinococcosis alveolar ◆ Bubonic Plague untreated 60% ♦ Tuberculosis untreated Marburg virus disease
 Meningitise Ebola 50% ▲ Sleeping sickness 40% Meningitis deadly • MERS Hantavirus Syphilis untreated high chance of death Smallpox 30% • Polio Dengue fever untreated MRSA + Typhoid Bubonic Plague treated ▲ Leishmaniasis quite deadly 10% unlucky or unhealthy ▲ Sleeping sickness treated · Yellow fever West Nile fever · Spanish flu • Cholera 1% HIV treated eishmaniasis all, treated Measles Whooping cough less deadly • Flu • Swine Hepatitis A ▲ Malaria · Hepatitis B 0.1% ▲ Guinea worm disease high risk groups seasonal® Chikungunya (infants, the aged) · Hand, foot & mouth Dengue fever Norovirus
 Chickenpox / Shingles varicella ▲ Schistosomiasis • Syphilis • Cold ▲ Lymphatic filariasis 2 Rhinovirus 13 15 16 6

extremely

CONTAGIOUSNESS *

Average basic reproduction number (Ro)

no of people one person will likely infect

contagious

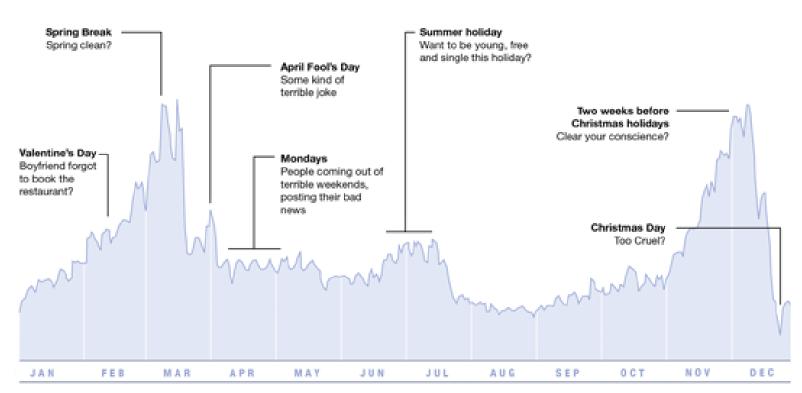
Ro < 1: disease not likely to spread

get treatment!

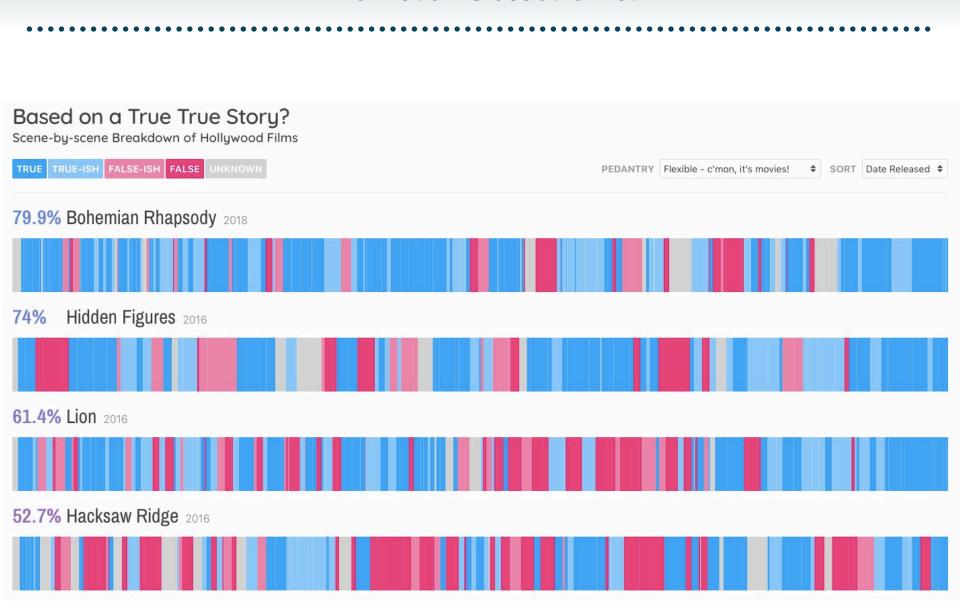
Information is beautiful.net

Peak Break-up Times According to Facebook status updates

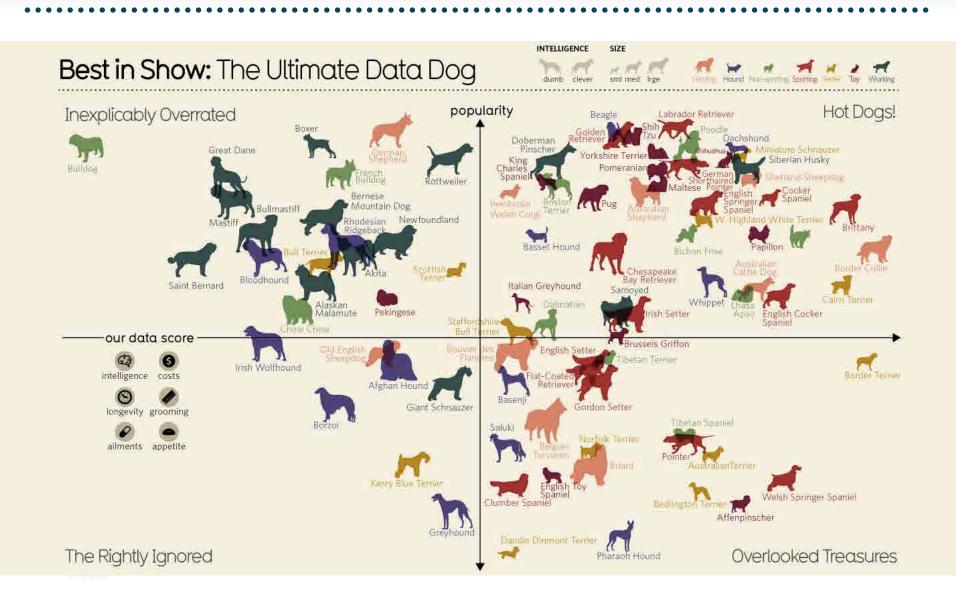
InformationIsBeautiful.net



Information is beautiful.net



Information is beautiful.net



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Getting through the gatekeepers

- Editorial office
- Editors
 - Triage
 - Review Process
 - Decision



Getting through the gatekeepers

Editorial office

- Have someone proofread your manuscript
- Use editorial services provided by journal (English language editing)
- Follow Journal submission guidelines
- Review checklists with submissions:
 - ARRIVE, CONSORT, STROBE, PRISMA
- Follow checklist when initially writing paper...not only at submission!





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Getting through the gatekeepers

Triage by editors

- A large proportion of submissions do not make it to peer review
- Editor's first impression
 - Cover letter, title, abstract, figures
 - Nothing raises a red flag
 - Not within scope of journal
 - Contains non-fixable flaws
 - flawed methodology
 - badly underpowered



Cover letter

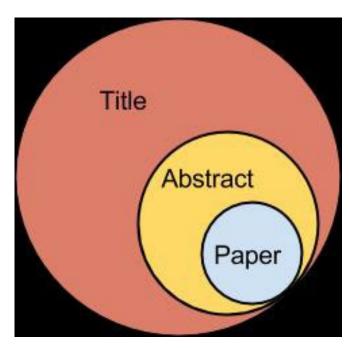
- Editors read the <u>cover letter</u>
- Address it to the editor in chief or editorial board member you want to handle the manuscript
- Keep it to 1 page
- Say why they should review it
 - Why fits in scope of journal
 - Why journal readership would find it important
 - Refer to relevant studies published by journal
 - Highlight novel aspects
 - Give the editors suggested reviewers



Title

- Concise (no more than 12 words)
- Condense 1 main finding into one sentence
- Use action verbs
- Accurately describe study
- Mention species/population studied
- Contain relevant key words
- Don't:
 - ask a question
 - use puns or metaphors

- Your title is the most important determinant of how many people will read your paper
- Relative number of reads (Nature jobs Blog)



Abstract

- Brief description of background
- Hypothesis and aims
- Study design and methods
- Main results
- What is new and why is it important
- Effective conclusion statement

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Review process

- Editorial office
- Editors
- Triage
- Review Process
 - At least 2 reviewers
 - Select reviewer suggested by authors in cover letter
- Decision
 - Major/minor revision: Revise and resubmit
 - Get a 3rd reviewer if differences between 2 reviews
 - Reject





Revising and responding

Response to reviewers





- Make at least a small change to manuscript text even when reviewer can be rebutted
- Copy changes made to manuscript directly into the response to reviewers, so fast and easy for editor/reviewers to see your changes

Revising and responding

- Editor decision will depend on:
 - Are reviews well performed and informative enough to make a decision?
 - High reviewer score?
 - Are there issues in paper that can't be fixed?
 - Final decision lies with Editor in chief





Outline

- How journal select papers: <u>citations</u>
- Find the best journal
- Drafting your manuscript
- Getting through the gatekeepers
- Manuscript Content & Style
- Revising and responding
- Promoting your paper



Promoting your paper

- Communication and publicity plan
 - Work with press office at your institution
 - Share data, methods, code
 - Post on LinkedIn, X, etc..
 - Start your own blog
 - Register for an ORCID ID, research gate etc...
 - Make work available via open access



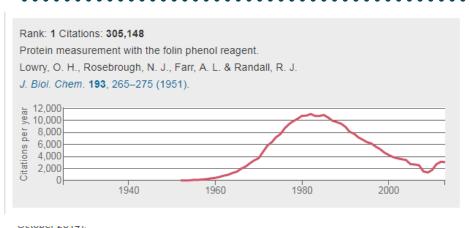


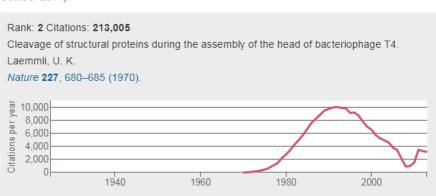
Citation Metrics

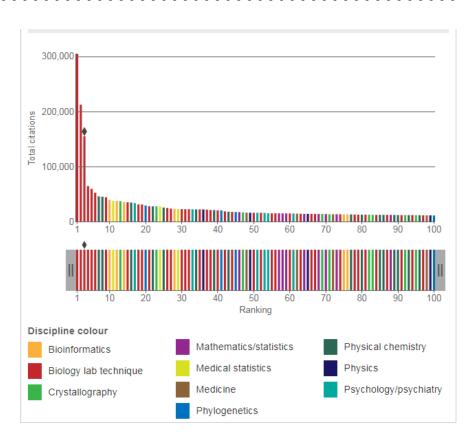
- Article-level metrics
 - # citations in scientific publications, Google scholars
 - Altmetric attention score-outside of academia
 - eg tweets/posts vs newspaper
 - www.altmetric.com
- Scholar metrics
 - H-index: h number of papers, each of which have been cited h times
 - i10 index: # of publications with at least 10 citations



Top cited papers of all time







- Assay to determine the amount of protein in a solution
- Top 100 dominated by biology lab techniques and statistical methods
 - Watson & Crick on structure of DNA, 1953, only 5,207 citations



Resources

- Schriger and Cooper. Achieving graphical excellence. Ann Emerg Med 2001: 37:75-87.
- Schriger et al. From Submission to Publication: A retrospective review of the table and figures ...Ann Emerg Med 2006: 48:75-756
- Weissgerber et al. Beyong bar and line graphs Plos Biol 2015; 13: e1002128
- https://youtube.com/watch?v=-dvPgvLyUz8 getting your work published
- http://blogs.nature.com/naturejobs/2014/06/06/how-to-getpublished-in-high-impact-journals-an-essential-guide/
- http://blogs.nature.com/naturejobs/2014/11/03/how-to-get-published-in-high-impact-journals-big-research-and-better-writing/
- http://www..wiley.com/legacy/wileyblackwell/images/2WritingGreatPapersIntlJournals.pdf
- Https://www.asbmr.org/submitting-your-paper
- http://news.wiley.com/wileyresearcheracademy



Merci Thank You



