Effectively Communicating Your Research

Jeffrey Robens, PhD
Editorial Development Manager

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SPRINGER NATURE

About me…

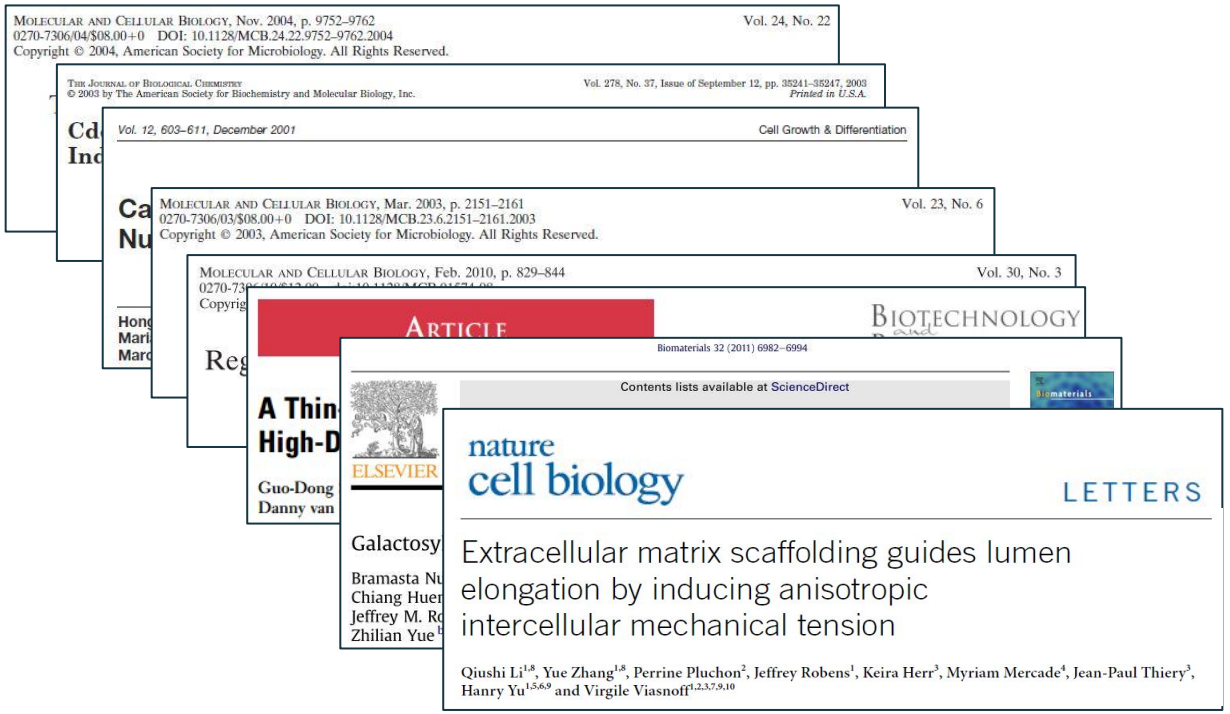
University of Pennsylvania

Agency for Science, Technology and Research SINGAPORE

NUS National University of Singapore

RIKEN

KYOTO UNIVERSITY KYOTO JAPAN FOUNDED 1897



Author

Peer reviewer

Academic editor

Editorial Development Manager

SPRINGER NATURE

Be an effective communicator

Your goal is not only to be published, but also to be widely read in your field

Logical manuscript structure

Efficient publication strategy

Successful journal submission

Logical Manuscript Structure

Your readers have 4 key questions

Methodology

What did you do?

Results

What did you find?

Introduction

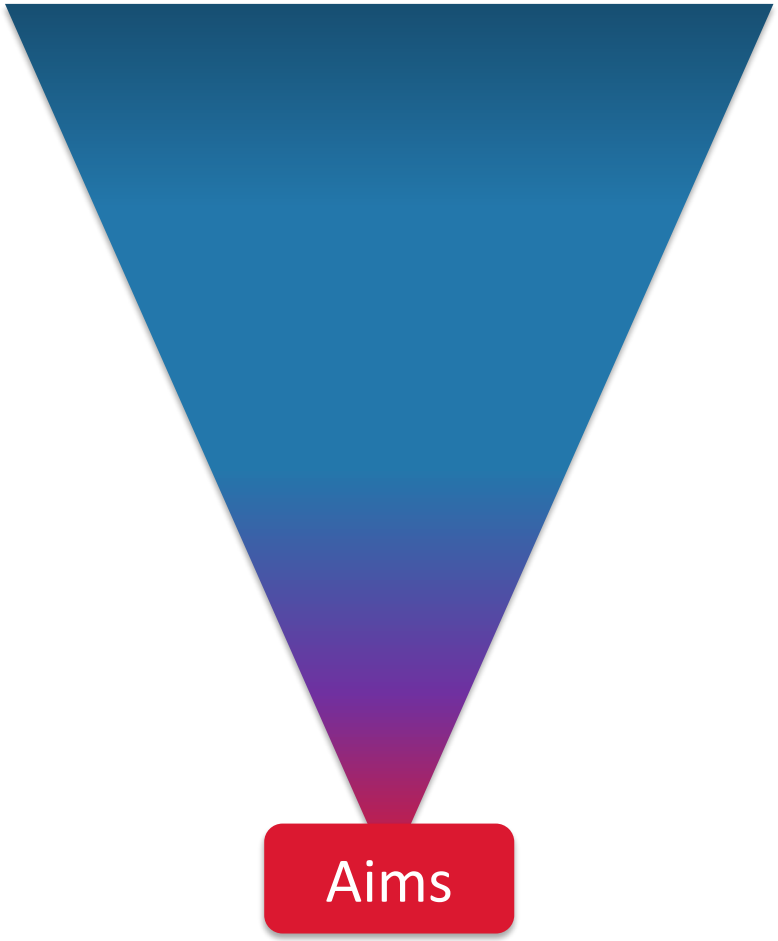
Why did you do the study?

Discussion

How does the study advance the field?

Introduction

Why does your study need to be done?



Introduce the topic

- Worldwide/regional relevance
- Broad/specialized audience

What is known about topic

- Up-to-date studies
- Cite broadly worldwide

What is not known

- Clear description of problem
- Use keywords like 'however'

Specific aims

Introduction

Your aims should directly address the problem

Problem in the field

However, the effectiveness of TiO_2 surface modification on reducing the microbial contamination of wastewater-treatment membranes has not been clearly characterised.

Variable	Outcome	Sample
TiO_2 surface modification	Reducing contamination	Wastewater-treatment membranes

Introduction

Your aims should directly address the problem

Problem in the field

However, the effectiveness of TiO_2 surface modification on reducing the microbial contamination of wastewater-treatment membranes has not been clearly characterised.

Study aims

In this study, we evaluated if TiO_2 surface modification effectively reduced bacterial and fungal contamination of membranes after wastewater treatment for 3, 6, and 12 months.

Methods

What did you do?

Researchers in your field	• Reproduce your findings • Build on your research
Peer reviewers	• Evaluate your study design • Validate your results

Methods

What do they need to know?

Who/what was used in the study

- Samples or participants
- Materials (where purchased)

How you conducted the study

- Methodology and techniques
- Discuss specific conditions and controls

How you analyzed your data

- Quantification methods/software
- Statistical tests (consult a statistician)

Guide your readers through your findings

Logical presentation

1. **Initial observation**
2. **Characterization**
3. **Application**

Example:

1. Fabricate new membrane for water treatment
2. Evaluate physical and chemical properties (e.g., under different temperatures/pressures)
3. Efficacy in removing particulate contamination

Guide your readers through your findings

One figure at a time

Results

Clear subheading 1

- Introduce experiment (figure 1)
- Discuss obtained data
- Summarize key finding

Clear subh

- Introduce
- Discuss o
- Summari

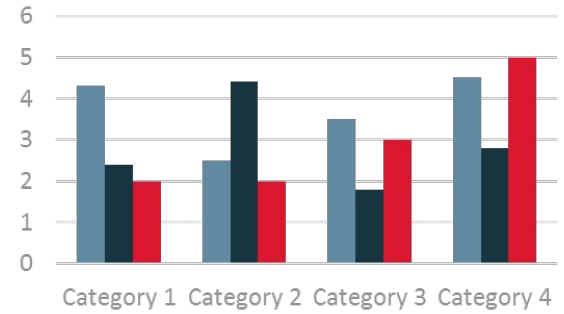
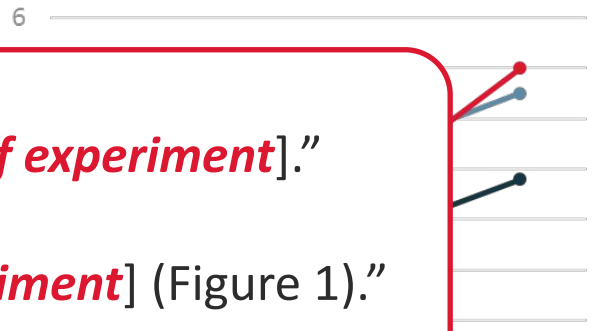


Figure 1. Descriptive figure caption



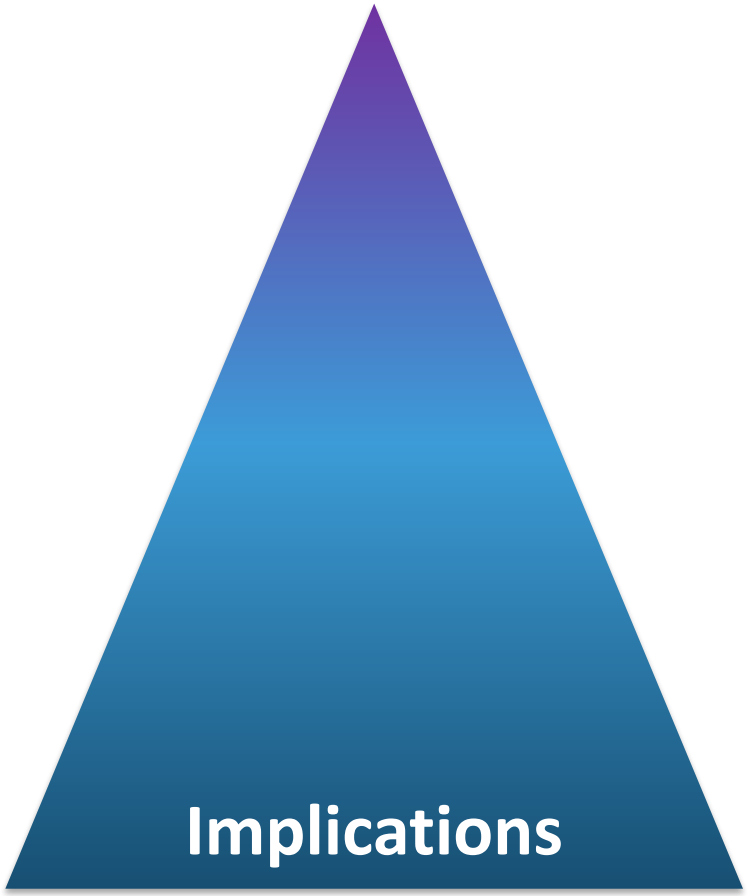
re caption

"Figure 1 shows [***description of experiment***]."

"First we [***description of experiment***] (Figure 1)."

Discussion

How your study contributes to the field



Summarize what you did

- Begin with research problem
- Briefly describe study design
- Summarize key findings

Interpret your findings

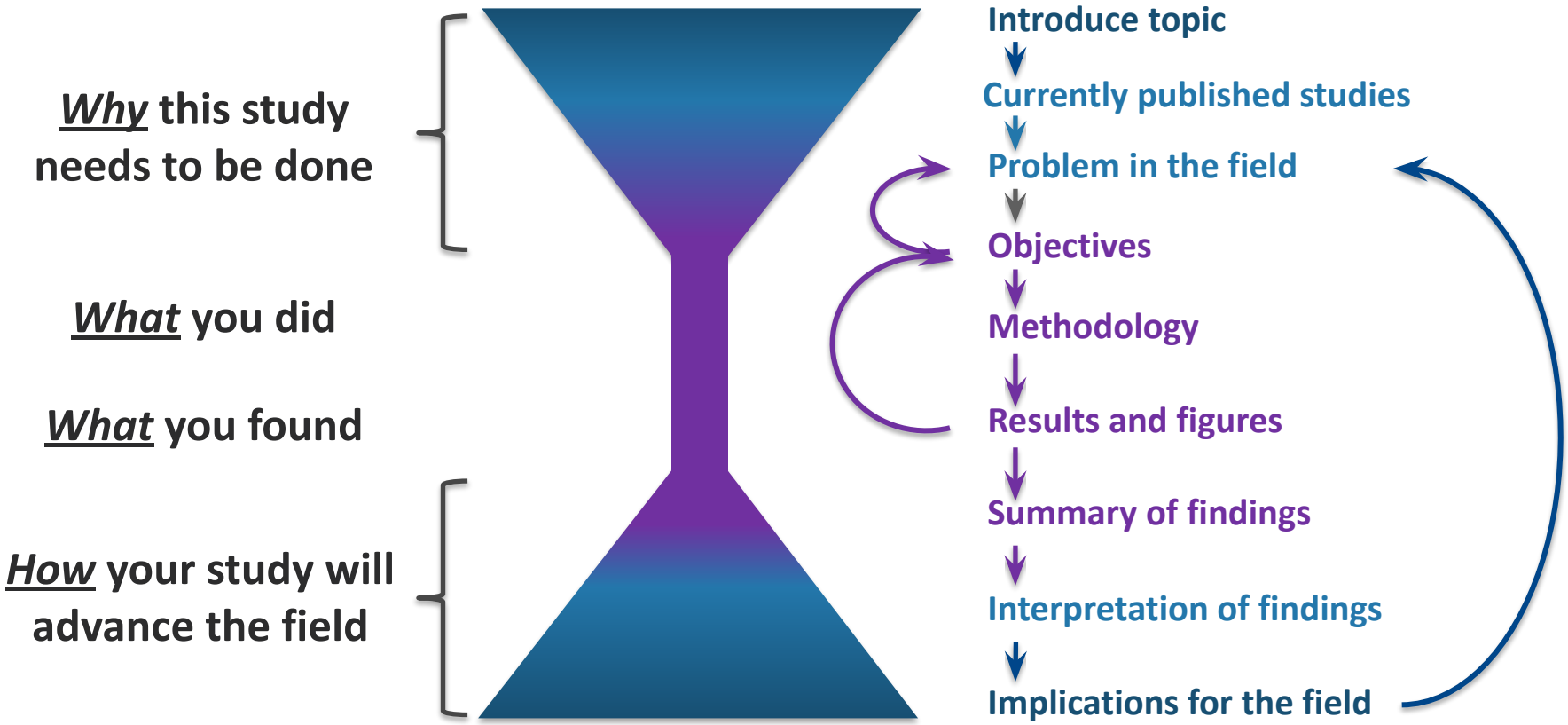
- Similarities & differences
- Unexpected/negative results
- Limitations

Why important to the field

- Main conclusion
- Implications

Logically linking your ideas

Answer the ***four key questions*** for your reader



Logically link your ideas throughout your manuscript

Abstracts – First impression of your paper

Aims	***Importance*** of your topic
Results	***Significance*** of your study
Conclusions	***Relevance*** of your study

Clarity of your writing

Abstracts – Good first impression

What do you readers want to know?

Why did the study need to be done?	Introduce topic and problem
What did you do?	Your aims and methodology
What did you find?	Key results
How study will advance the field?	Conclusions and implications

Abstracts – Good first impressions

Numerous systemic treatment options exist for patients with mycosis fungoides (MF) and Sézary syndrome (SS); however, the comparative efficacy of these treatments is unclear. We performed a retrospective analysis of our cutaneous lymphoma database to evaluate the treatment efficacy of 198 MF/SS patients undergoing systemic therapies. The primary end point was time to next treatment (TTNT). Patients with advanced-stage disease made up 53%. The median follow-up time from diagnosis for all alive patients was 4.9 years (range 0.3–39.6), with a median survival of 11.4 years. Patients received a median of 3 lines of therapy (range 1–13), resulting in 709 treatment episodes. Twenty-eight treatment modalities were analyzed. We found that the median TTNT for single- or multiagent chemotherapy was only 3.9 months (95% confidence interval [CI] 3.2–5.1), with few durable remissions. α-interferon gave a median TTNT of 8.7 months (95% CI 6.0-18.0), and histone deacetylase inhibitors (HDACi) gave a median TTNT of 4.5 months (95% CI 4.0–6.1). When compared directly with chemotherapy, interferon and HDACi both had greater TTNT ($P < .00001$ and $P = .01$, respectively). In conclusion, this study confirms that all chemotherapy regimens assessed have very modest efficacy; we recommend their use be restricted until other options are exhausted.

Modified from: Cannegieter et al. Blood. 2015; 125: 229–235.

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- In this study, we used [*methodology*] to evaluate [*aim*].
- In this study, we evaluated [*aim*] using [*methodology*].

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Why **this study needed to be done**

What **you did**

What **you found**

How **advances the field**

Modified from: Cannegieter et al. Blood. 2015; 125: 229–235.

☑ *Logically organized manuscript*

Where to submit?

Efficient Publication Strategy

Publication goals

Publish quickly and have impact in the field

Choose the most appropriate journal

- Novelty of your findings
- Relevance of your findings

Communicate study's relevance

- In your manuscript
- In your cover letter

Choose the appropriate journal

Where are the findings relevant?

Worldwide	Choose an ***international*** journal to reach a worldwide audience
Locally	Choose a ***regional*** journal to reach a local audience

Choose the appropriate journal

*Should regional findings **only** be published in regional journals?*

NO!

Choose the appropriate journal

*If regional findings have worldwide relevance, they should be published in **international** journals*

You must emphasize the global implications of your regional findings in your manuscript

Choose the appropriate journal

For whom are the findings relevant?

Your field only	Choose an ***specialized*** journal to reach readers in your field
Your and other fields	Choose a ***broad-focused*** journal to reach readers across disciplines

Choose the appropriate journal

How much accessibility do you need?

Subscription	Only academics with access to the journal can read your article
Open access	Freely available to everyone worldwide

Benefits of open access

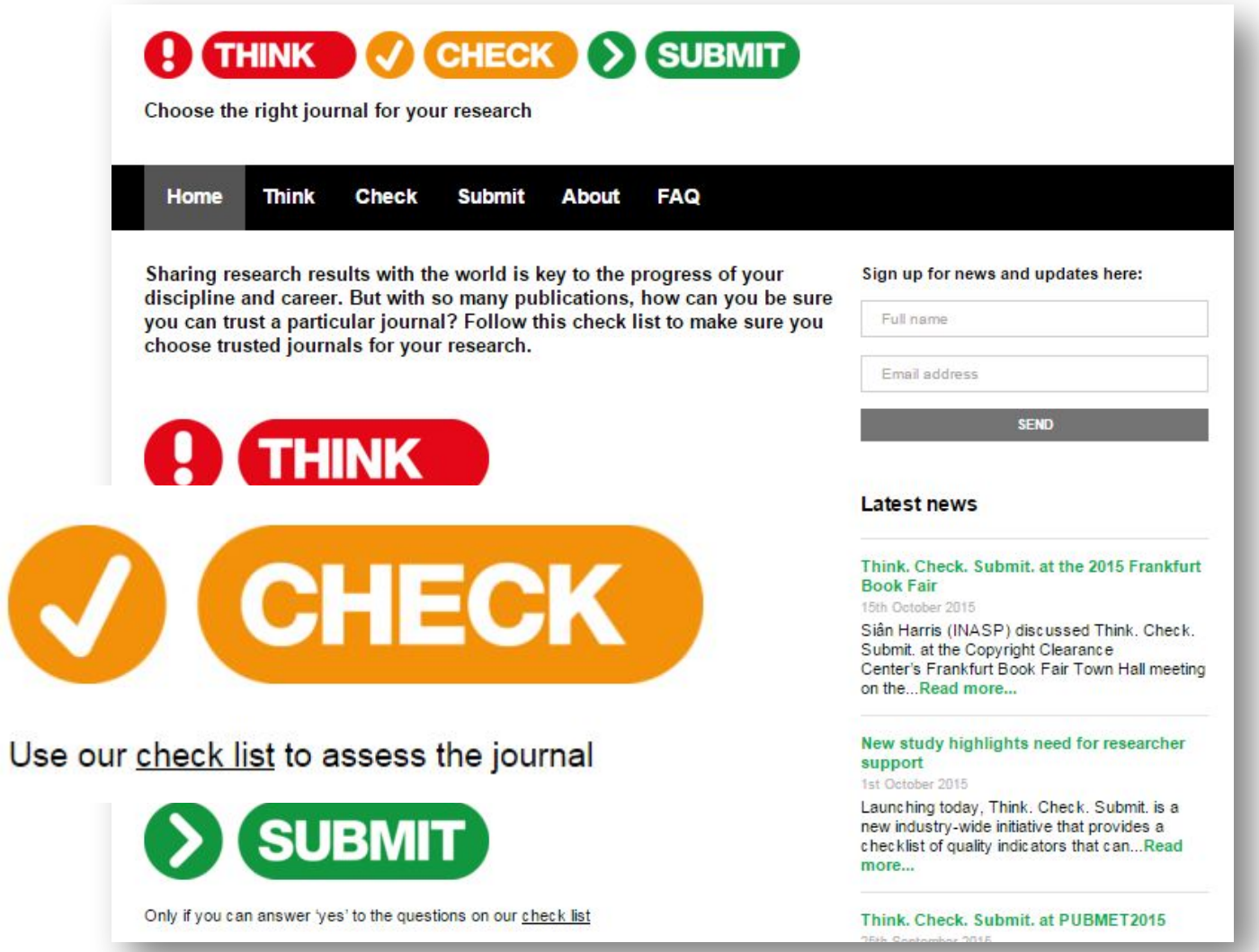
- Fulfill funder or institutional ***mandates***
- Increase ***accessibility*** to your findings worldwide
- Increase the number of ***downloads*** of your article
- Allows you to retain the ***copyright*** to your work
- Published ***quickly*** online
- ***Fewer restrictions*** on word and figure limits

Not all open access journals are good

How to identify a trustworthy journal?

Reputable publisher	Springer Nature, Elsevier, PLoS, etc.
Editorial board	International and familiar
Indexed	Indexed by common databases
Authors	Do you recognize the authors?
Fees	Only paid ***after*** acceptance

Think – Check – Submit (www.thinkchecksubmit.org)



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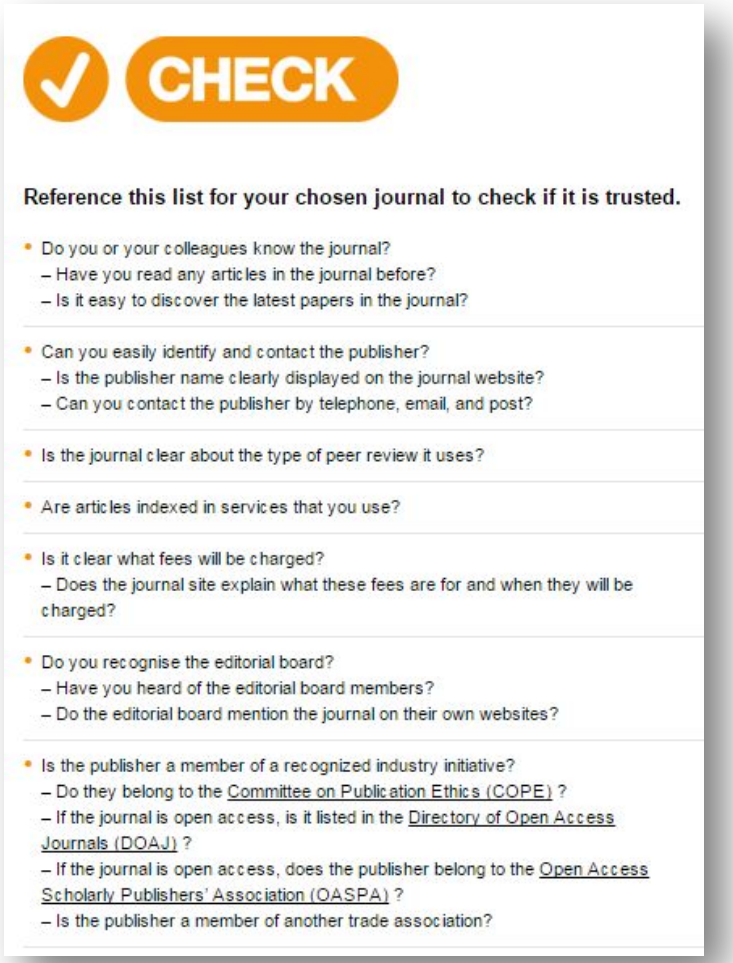
Think – Check – Submit (www.thinkchecksubmit.org)



CHECK

Reference this list for your chosen journal to check if it is trusted.

- Do you or your colleagues know the journal?
  – Have you read any articles in the journal before?
  – Is it easy to discover the latest papers in the journal?
- Can you easily identify and contact the publisher?
  – Is the publisher name clearly displayed on the journal website?
  – Can you contact the publisher by telephone, email, and post?
- Is the journal clear about the type of peer review it uses?
- Are articles indexed in services that you use?
- Is it clear what fees will be charged?
  – Does the journal site explain what these fees are for and when they will be charged?
- Do you recognise the editorial board?
  – Have you heard of the editorial board members?
  – Do the editorial board mention the journal on their own websites?
- Is the publisher a member of a recognized industry initiative?
  – Do they belong to the Committee on Publication Ethics (COPE) ?
  – If the journal is open access, is it listed in the Directory of Open Access Journals (DOAJ) ?
  – If the journal is open access, does the publisher belong to the Open Access Scholarly Publishers' Association (OASPA) ?
  – Is the publisher a member of another trade association?

Only submit to a journal if you can answer ***yes*** to all of these questions!

Appropriate journal

Logically organized manuscript

Ready to submit!

Journal editors are busy!

Successful Journal Submission

Journal editors are busy!

Most journal editors are not full-time journal editors

Full-time professors
Department heads

Journal editors when they have time

You are competing with many other researchers for the journal editor's ***limited time***

Make the best first impression for journal editors

Cover letter

Significance and relevance of study

Suitable to be published by their journal

Interesting to their readers?

Clear and concise writing style?

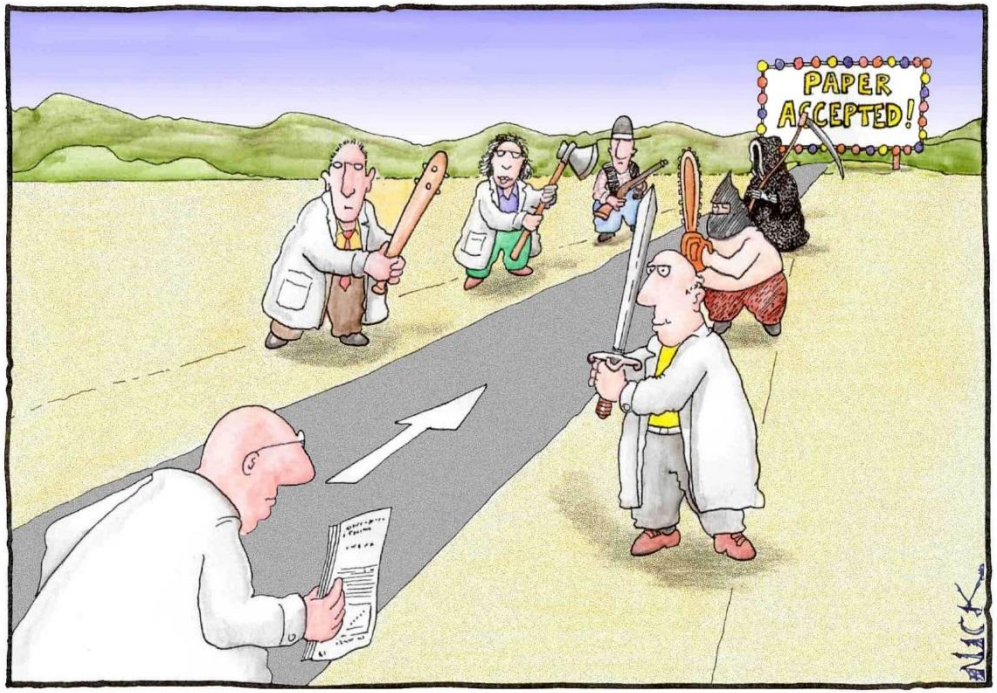
Cover letters – What to include (~1 page)

Introduce your manuscript	• Manuscript title • Article type
Why study is important	• Brief background • Research problem & aims
What you found	• Study design • 1 or 2 key findings
Why suitable for the journal	• Conclusion • Interest to the readership
Additional information	• Include/exclude reviewers • Publication ethics

Convince journal editor manuscript is suitable

Peer review

Peer review is a positive process



Most scientists regarded the new streamlined peer-review process as "quite an improvement."

Cartoon by Nick D Kim, scienceandink.com. Used by permission.

Experts give advice on how to ***improve*** your study and your manuscript

Ensures only ***relevant*** studies are published

Peer review helps to ***advance*** the field

Writing response letters

Clearly discuss all of your revisions

Most common mistake

Only state that revisions have been done, not what the revisions were

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Most common mistake

Only state that revisions have been done, not what the revisions were

Journal editors are very busy!

Make revisions easy to review

- ✔ Briefly state what was revised
- ✔ Always refer to page and line numbers
- ✔ In manuscript, highlight revised text

Once you are published, now you just have to wait for all those citations to start rolling in…

Promote your article after publication

Don't wait for people to find it!

Present at conferences

- Interact with others in your field
- Key target audience
- Establish new collaborations

Promote on social media

- LinkedIn & Twitter
- Use ***content sharing*** when available

Content sharing

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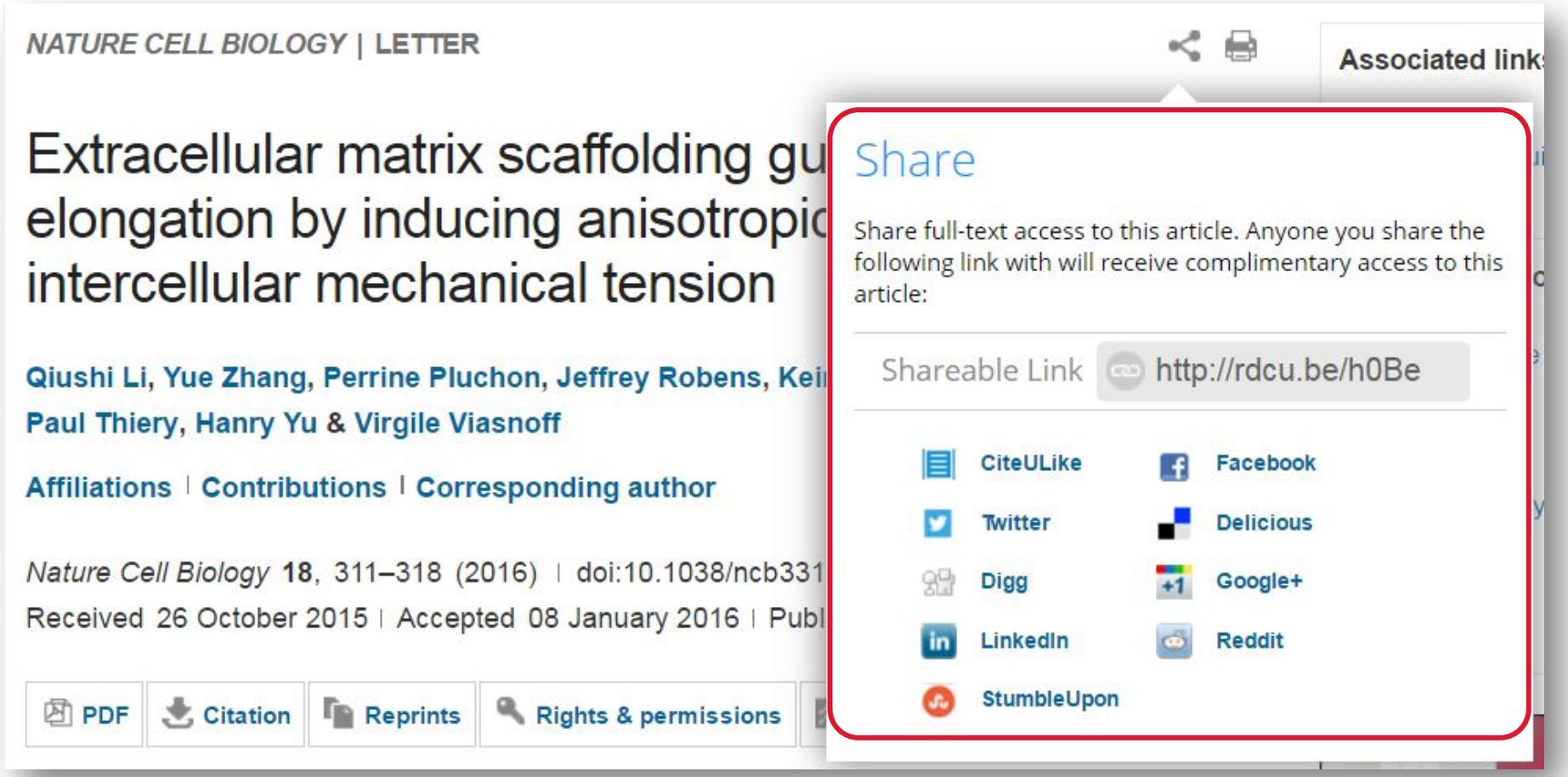
Content sharing – Enabling access worldwide



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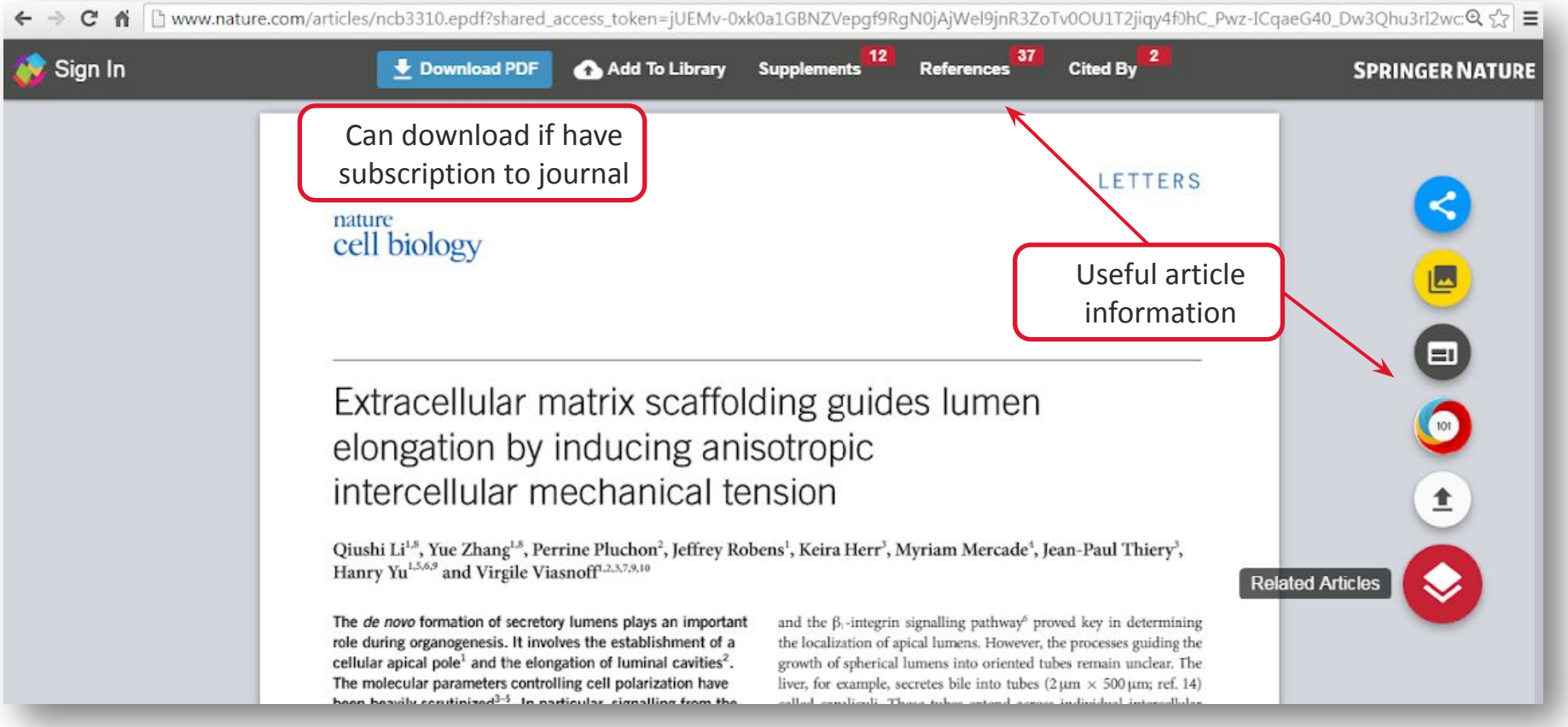

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If at first you don't succeed…

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Springer

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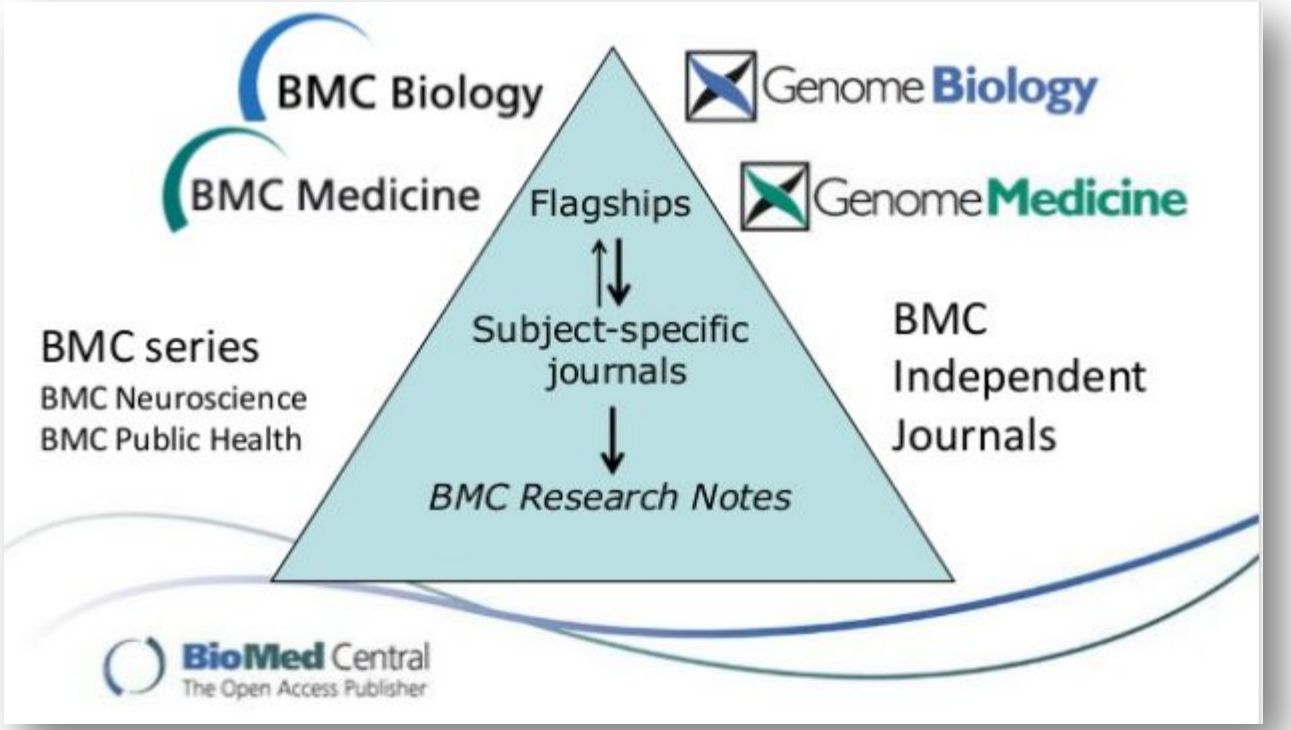

Be an effective communicator

- ✔ Logical manuscript structure
- ✔ Effective publication strategy
- ✔ Successful journal submission

You will increase your chance of publication and your research impact

1- or 2-day interactive training workshops

nature MASTERCLASSES

<50 researchers in natural sciences

Presented by Nature journal editors

SPRINGER NATURE Publishing Academies

50–250 students in natural & social sciences

Presented by trained publishing consultants

Editing services

Language Editing

Native English-speaking editors, matched to your subject area, improve your written English

Scientific Editing

Nature-standard editors provide expert advice on the science in your papers and grant applications

Thank you!

Any questions?

Dr. Jeffrey Robens

Editorial Development Manager

jeffrey.robens@springernature.com

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