

## Behind the Scenes at the Science Journals

Valda Vinson, PhD Executive Editor, *Science Journals* 

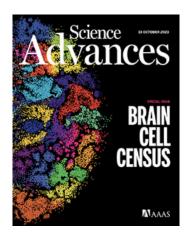


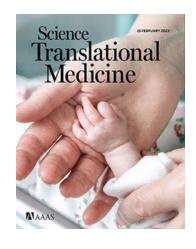
A boldly inclusive, mobilized, and global scientific community that ignites, enables, and celebrates scientific excellence and scienceinformed decisions and actions

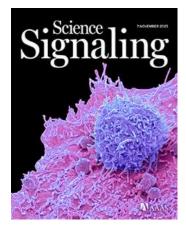


#### The *Science* Journals









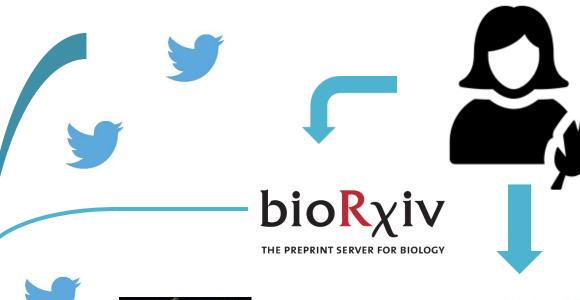


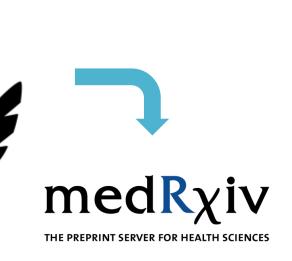


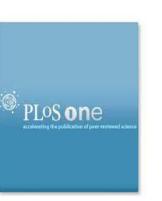
### **Communicating with clarity**

"Scientists can't expect to get their message across to nonscientists if they can't get it across to each other." Holden Thorp





























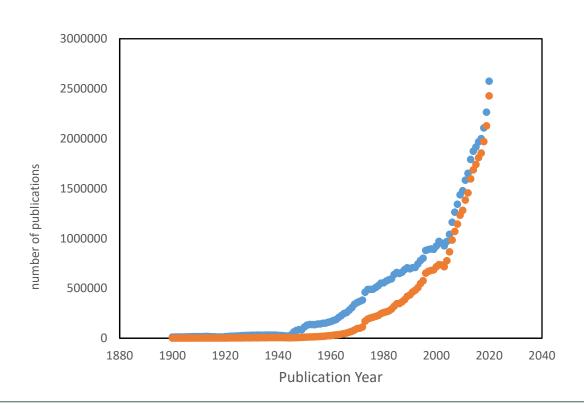
## **Papers**

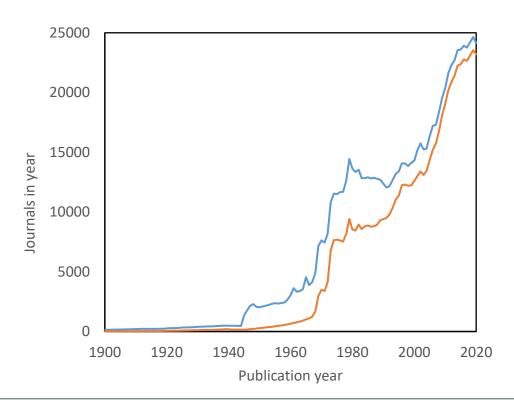


Readers



#### Growth in articles and journals in Scopus 1900 - 2020





Blue – all articles or journals, Orange – Articles/Journals with 500+ character abstracts From https://direct.mit.edu/qss/article/3/1/37/109076/Scopus-1900-2020-Growth-in-articles-abstracts

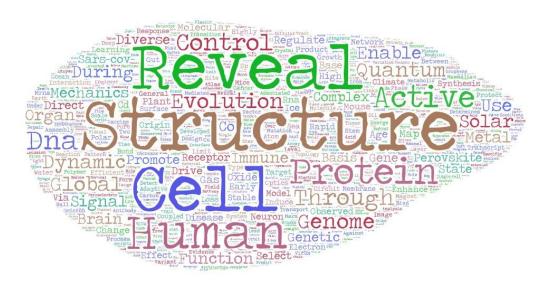
#### Picking a journal



Right audience



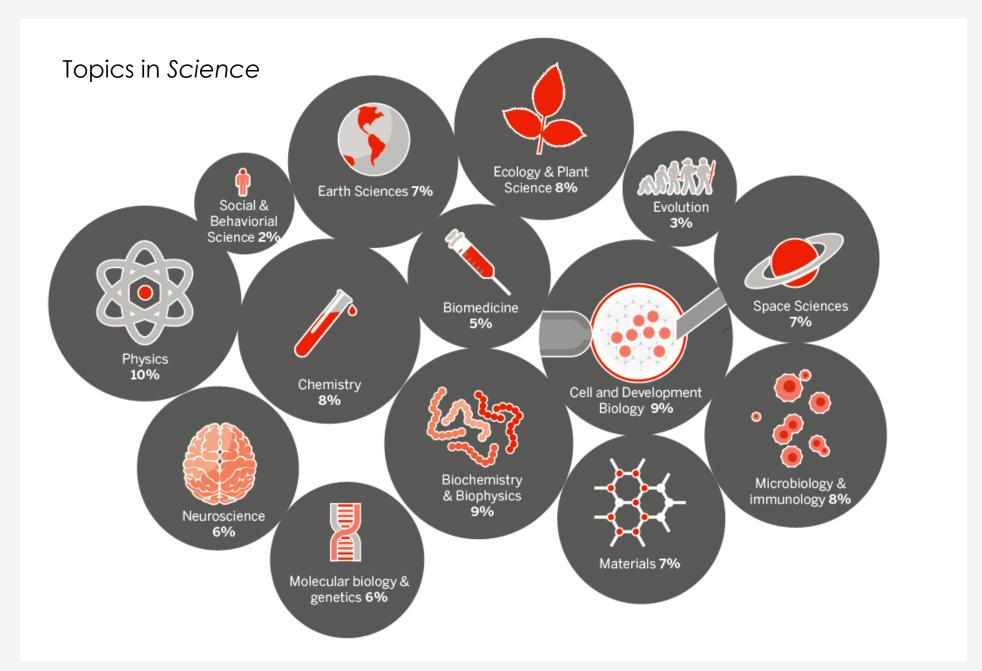
Journal quality



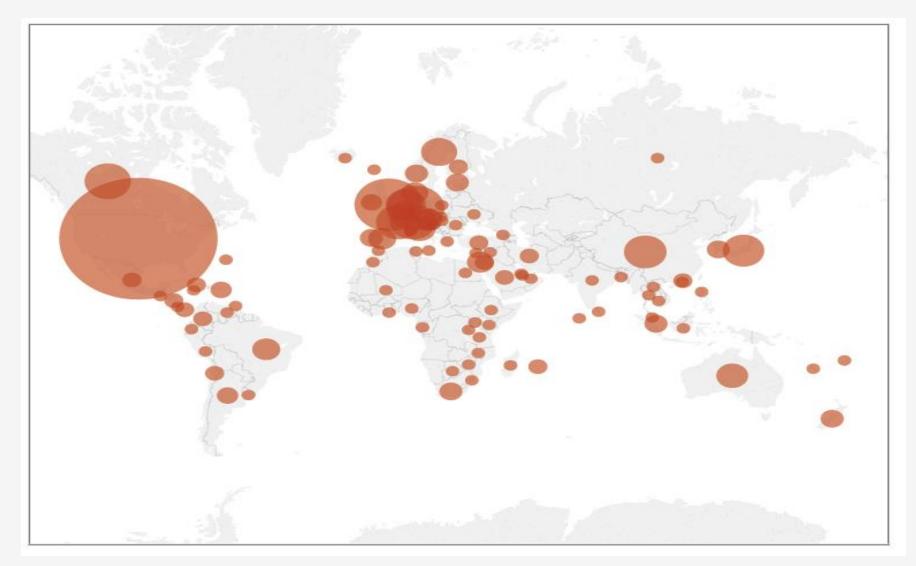
Right Scope and Focus



Journal selectivity



## Papers published in the last decade

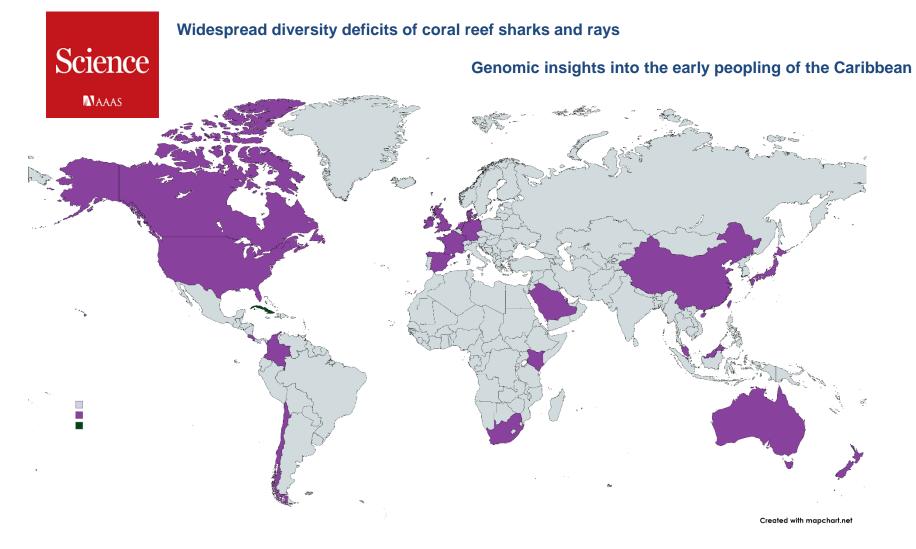


Many papers are multidisciplinary

Many papers are multinational

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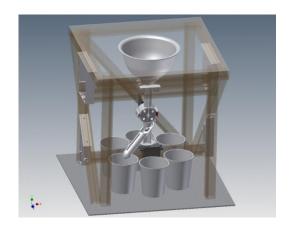


Imperfect bodies sink imperfectly when settling in granular matter.



Coordination-induced polymerization of P=C bonds leads to regular (P-C)n polycarbophosphanes

E. coli "super-contaminates" narrow ducts fostered by broad run-time distribution





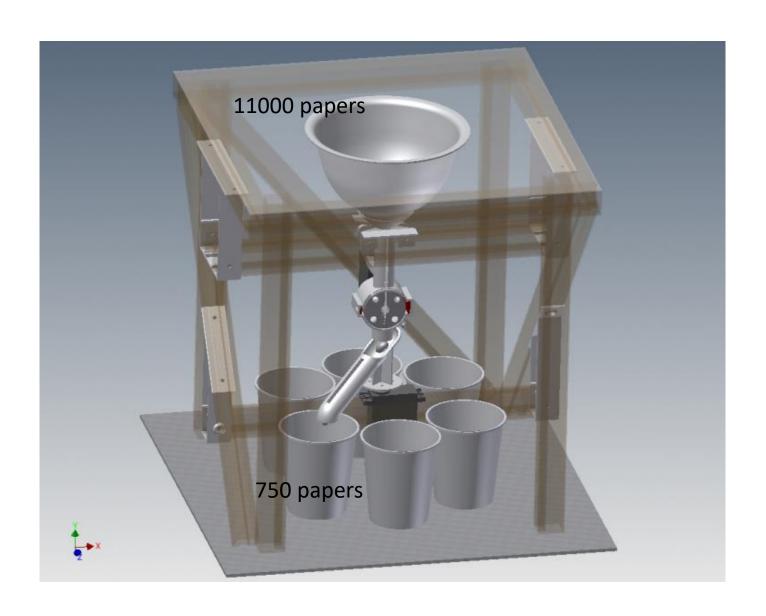


Select

Enrich

Share

## Select - Editors and Reviewers...



THE TEAM

# Science MAAAS

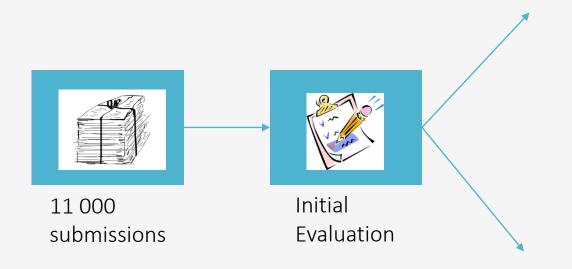


### What happens to my paper?



11 000 submissions

#### What happens to my paper at *Science*?



Time: 1 - 2 weeks

Evaluated by: In-house editors,

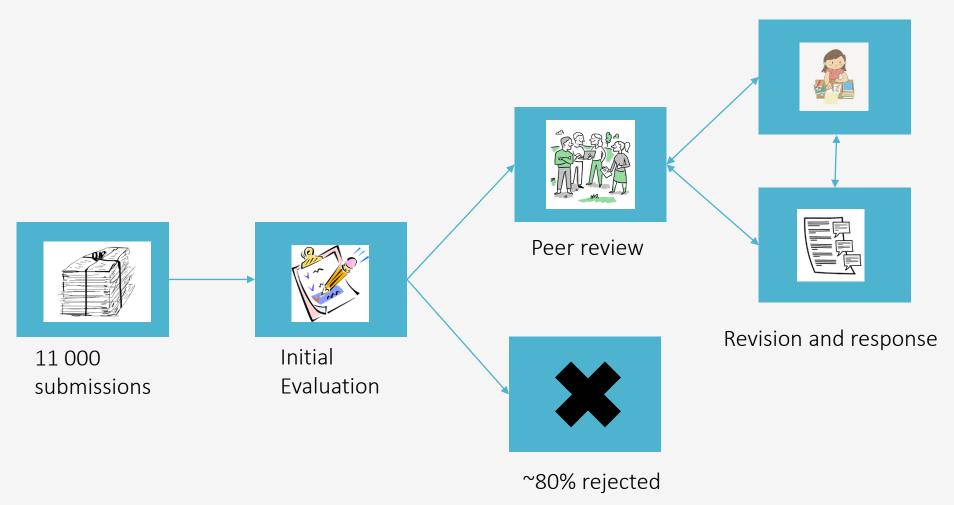
members of our Board of

**Reviewing Editors** 

#### What happens to my paper?

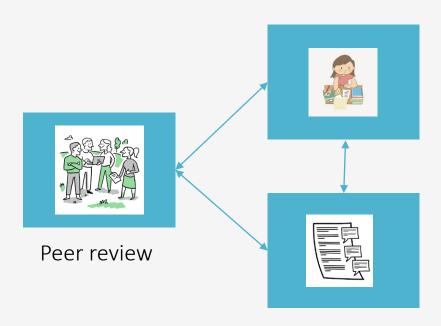


#### What happens to my paper?



## What happens to my paper? ~7% accepted Peer review Revision and response 11 000 Initial Evaluation submissions ~80% rejected

#### The Review Process



Revision and response

Source: https://www.clipart.email/download/8788917.html

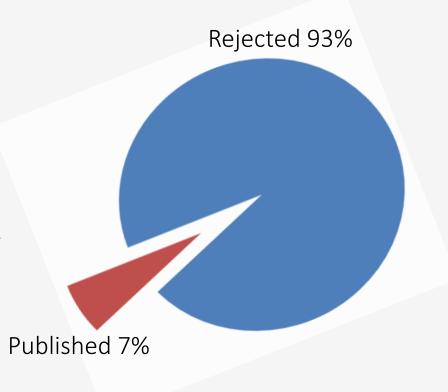
## Choosing Reviewers

- Editor's knowledge
- Board suggestions
- Database searches
- Author suggestions
- Expertise
- Diversity
- No COI

#### Common reasons for rejecting a paper

Better suited to a specialist audience

Reviews not as enthusiastic as for other papers being considered



Most exciting parts too speculative

Adds to field, but doesn't advance it significantly

Enrich

**Technical** edit

Detailed methods

Proøfig

Checklist

Code and data



#### MDAR – Materials, Design, Analysis Reporting

#### **Materials**

 biological reagents, lab animals, model organisms, animals in the field, unique specimens

#### Design

 study/experimental design, protocols, statistics, methodologies, DURC

#### **Analysis**

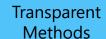
 data, code, statistics as relevant to analysis

#### Reporting

 discipline-specific guidelines and standards (ICMJE, MIAME, ARRIVE, CONSORT, PRISMA etc) "Minimum"

Recommended "best practice"

# Propfig







Reusable Code

Post

publication

review

**FAIR Data** 

REPRODUCIBILITY

Pre-submission review



**PUBPEER** 

The online journal club

Review by Journal



DRYAD



## Science's data policies

- All data must be available at the time of publication
- Use public repositories for data/code API with Dryad







- Specific statement in acknowledgements about data availability
- All reasonable requests for materials must be fulfilled



Share

"Real access to scientific information depends entirely on making it understandable to the intended audience."

-Sudip Parikh, Current AAAS CEO



#### A Science paper's value goes beyond availability

- Editors work to make manuscripts understandable by a broader audience.
- We have a press office that communicates the work to the media and gives authors guidance on promoting their work.
- Our free newsletter Science Adviser communicates science to a broad readership

https://www.science.org/content/page/scienceadviser

#### **Thank You**

