

Authorship and Publishing

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Why publish?

Publishing in a journal is an integral part of being a researcher:







- connects researchers; informs about new research; world-wide readership.
- permanent record of discoveries, when and by which whom.
- promotes recognition of researchers from funders and other institutions.
- quality standard of the researcher's work: rated as valid, significant and original by other experts.

Authorship

Who qualifies?

Some criteria for deciding authorship in a joint paper:
By role

- **Writer**
(usually an experimenter) 
- **Experimenter**
(even if not a writer) 
- **Data analyst**
(even if not experimenter or writer) 
- **Grant applicant/team leader**
(even if not any of the above) 

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Authorship 2

Some criteria for deciding authorship in a joint paper:
By expertise

- Would any author be able to field questions and criticisms of the paper in the absence of the other authors?



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Authorship 3

Order of Appearance of Names

I.M. Great, N. Modest, and U.R. Last

The practice varies but the order

- could imply weight of contribution
- may list by greatest name recognition
- could list the research leader's name last.

An alphabetical listing is sometimes used instead.

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Publishing

The Process

a. Choose journal.

- Scope / coverage
- Indexed?
 - Science Citation Index; Social Sciences Index.
- ERA (Excellence in Research for Australia) ranking?

b. Write.

Follow the instructions to authors

- Format / style
- Length
- Illustrations
- Referencing
- Submission

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The Process 2

The format of a paper is IMRaD but the probable sequence of writing is MRDaI:

- Materials and Methods can be described before your results are obtained.
- Results must be generated and analysed before you can discuss.
- The discussion must be known before an appropriate Introduction can be written to set the work and findings in their proper place.
- The title and abstract must have a completed work to summarize.

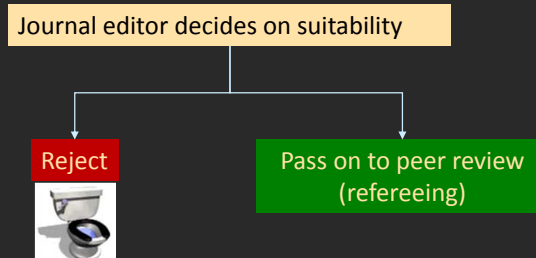
d. **Maturation and final proofing.**

e. **Submit manuscript.**

The Process 2

d. **Journals receive more manuscripts than they can/will publish.**

Two-step vetting process:



Peer Review

Around **21,000** scholarly and scientific journals use the peer-review system, publishing over **1 million** research papers each year (Sense About Science, 2005).

Peer Review

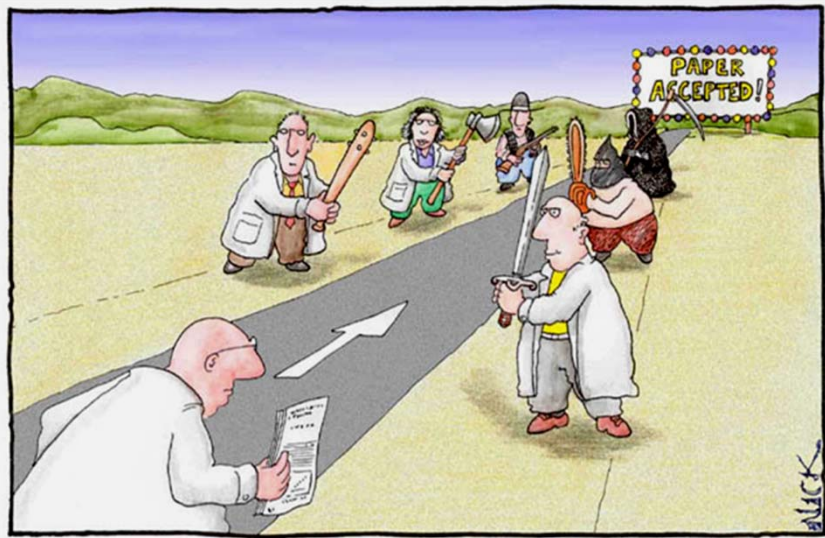
Is used in

- Assessment of grant applications for funding
- Reviewing manuscripts for journal publication (refereeing)

Is a quality assurance procedure.

Peer Review 2

How some see it



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Peer Review 3

However,

"... the person most qualified to judge the worth of a scientist's grant proposal or the merit of a submitted research paper are precisely those who are the scientist's closest competitors" (Judson, 1994).

Therefore, a reviewer must be above:

- envy.
- favoritism.
- the temptation to plagiarize.

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Peer Review 3

Referees are asked to comment on:

- **Validity**

Are results credible?

Is the methodology appropriate?

- **Significance**

Is it an important finding?

- **Originality**

Are the results new?

Does the paper give proper credit to the work of others?

- **Whether the paper should be:**

Published, improved or rejected.

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How do we know if a journal uses peer review?

One could check

- Science Citation Index.
- Social Sciences Index.

A journal listed in these indices is peer reviewed.

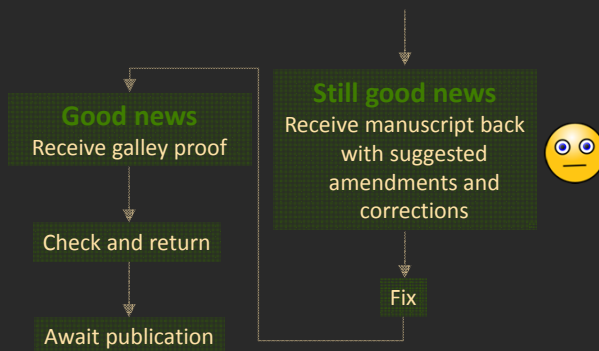
The Process 2

e. Await review by referees

f. After the review



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Bad news
Manuscript rejected

REVIEW!!!
What went wrong?

More work
Re-write / Benchwork

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Almost all scientists will have manuscripts of their work rejected at some stage of their career

and if it happens to you . . .

consider yourself to be in the best of company . . .

A rejection story

(After Borrell, 2010)

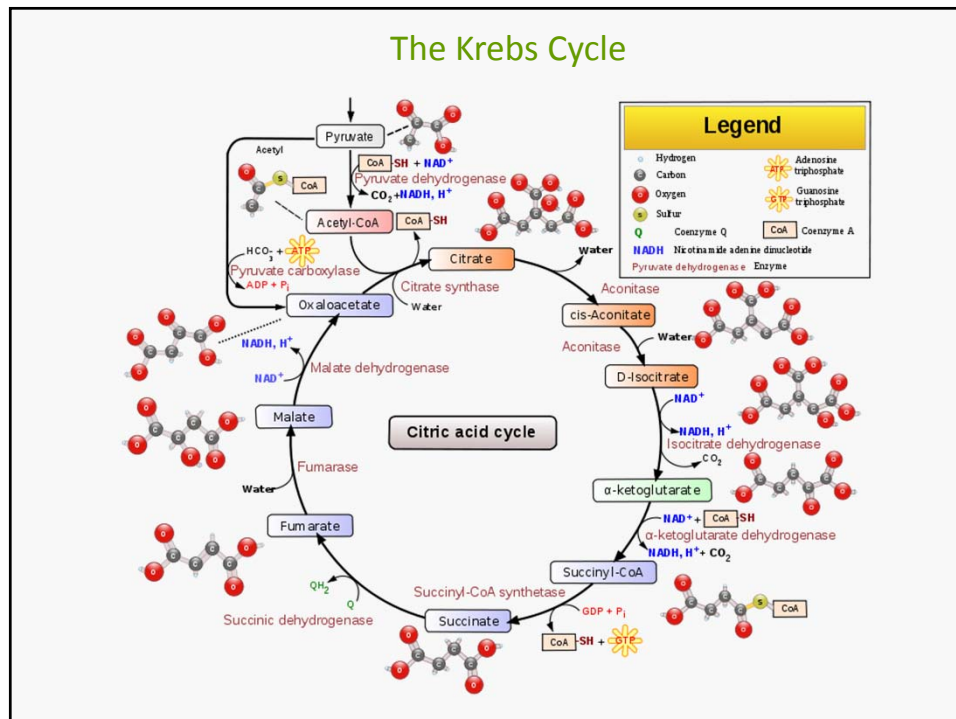
Sir Hans Adolf Krebs

1900 – 1981

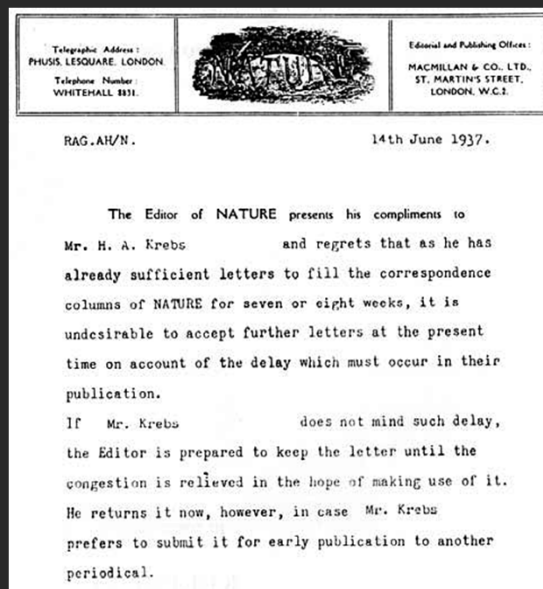
- Biochemist
- Discoverer of the Citric Acid Cycle (the “Krebs Cycle”)



for which he was awarded the 1953 Nobel Prize in Physiology or Medicine



- March 1937
Krebs made the initial findings which led to the discovery of the Citric Acid Cycle
- Findings submitted to *Nature* but his short paper (a letter) was not published.
- The journal had a *letters* backlog of 2 months (Krebs' letter was not important enough)
- Krebs: "This was the first time in my career, after having published more than fifty papers, that I experienced a rejection or semi-rejection."



- Krebs re-submitted his findings to *Enzymologia* and was published within 2 months.
- in 1988, a letter in *Nature* published by an editor called the rejection the journal's most "egregious error".