Today: Authorship and Peer Review

RM lecture on
Sunday 10/9 at 5pm

Stream Sort...

"Surely you were aware when you accepted the position, Professor, that it was publish or perish?"

Sara Nichols works as a technician in the laboratory of Dr. Jacob Smith. Dr. Smith conceived of some experiments. Sara carried out the experiments and interpreted the results. Dr. Smith wrote the paper. When it is time to submit the article Sara is not an author, but acknowledged. Sara thinks she should be an author. Was Dr. Smith's decision appropriate? What could Sara have done to avoid this conflict? What can she do now?

Adapted from: Scientific Integrity: an Introductory Text with Cases, 2nd ed. (2000) F. L. Macrina, ASM Press, Wash., D.C.

Dr. Colleen May is a neurologist participating in a clinical trial assessing the efficacy of a new drug. Over two years she meets with several patients each month, about 20 hours per month. During each visit, she administers a variety of specialized tests that can only be administered by a trained neurologist. At the conclusion of the clinical trial, the results are analyzed by the project leaders and prepared for publication. Dr. May has just learned that she will not be a co-author, but she will be mentioned in the acknowledgements section. Dr. May argues that considering her over 500 hours of specialized work, she should be included as a co-author. Should Dr. May be a co-author? What criteria did you use to make your determination?

Adapted from: Scientific Integrity: an Introductory Text with Cases, 2nd ed. (2000) F. L. Macrina, ASM Press, Wash., D.C.

Dr. Pat Booth is working in a laboratory, and is asked to help train a student on techniques for microscopic localization of proteins. She trains the student on these techniques, and the student uses this training to localize a protein. This work is then prepared for publication, but Pat is not a co-author. The laboratory supervisor, Dr. Jack Taylor, will include Pat in the acknowledgements, but he says that he has strict rules about authorship. Dr. Taylor says that authors must have contributed intellectual and/or conceptual contributions, and that merely technical assistance is not grounds for authorship. Should Pat be included as an author? Adapted from: Scientific Integrity: an Introductory Text with Cases, 2nd ed. (2000) F. L. Macrina, ASM Press, Wash., D.C.

Why is it important for all authors to agree to be listed as authors? Why would someone **not** ant to be listed as an author on a paper?

What is the difference between authorship and acknowledgement?

Jim Morris has written an article to be submitted to the Journal of Immense results. Bill Burdock, a colleague is on the editorial board of this journal. Jim submits the manuscript for Bill to consider. Bill decides that he can serve as the editor of the article without any conflicts of interest because the article will be sent to two outside reviewers. Do you agree with this decision? Why or why not?

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Who are reviewers of scientific articles?

The associate editor then has three choices:

Accept paper as is. (rare)

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Reject paper. (20-80% rejection rate in physical sciences*)

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Bang for Your Buck: Rejection Rates and Impact Factors in Ecological Journals. The Open Ecology Journal (2008) L.W. Aarssen, T. Tregenza, A.E. Budden, C.J. Lortie, J. Koricheva and R. Leimu 1: 14-19

Now what do the author(s) do:

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Celebrate

Now what do the author(s) do:

Accept paper and ask for some changes…

Work on changes. May be changes to text, experiments, or both.

Now what do the author(s) do:

Reject paper…

Submit to another journal or try to fix deficiencies and resubmit.

Dr. Monroe Jackson researches catalysts for converting CO_2 to $CaCO_3$. He is asked to review an article that is very similar to one that he is preparing for submission. What should Dr. Jackson do?

What makes a “good” or “top ranked” journal?

What makes a “good” or “top ranked” journal?

Where the most important papers are published?

What makes a “good” or “top ranked” journal?

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Citations = Important

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2010 top 5-year impact factors

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Stream Sort...

"Surely you were aware when you accepted the position, Professor, that it was publish or perish?"

The following slides were not used in class, but can help you understand Authorship and Peer Review...

Authorship: giving correct and appropriate credit for work done is important.

Do not want to ignore someone's contribution

Do not want to overemphasize someone's minor contribution

How to decide what type of credit to give?

Based on-
Scientific Integrity: an Introductory Text with Cases, 2nd ed. (2000) Marcina, F. L. ASM Press, Washington, D.C.

Authorship criteria:

Experimental, technical, and/or intellectual contribution to work

Types of credit:

Authorship

Acknowledgement

Authorship criteria are not universal or always well-defined:

from Cell

The corresponding author is responsible for ensuring that all appropriate contributors are listed as authors and that all authors have agreed to the manuscript's content and its submission to Cell. In a case where we become aware of an authorship dispute, authorship must be approved in writing by all of the parties.

Authorship criteria are not universal or always well-defined:

from Science

All authors must agree to be so listed and must have seen and approved the manuscript, its content, and its submission to Science.

Authorship criteria are not universal or always well-defined:

from Nature

Authors are strongly encouraged to include a statement in the end notes to specify the actual contribution of each coauthor to the completed work.

Publications can lead to:

Jobs

Promotions and/or raises (academically to tenure or full professor)

Grants

Prestige

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Can add to number of publications, but each article may be published in a lesser journal than the cohesive article would have been.

Not unethical, but also not ethical or helpful for advancing research.

Who should be an author?

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Produced experimental data

Provided ideas or oversight

Analysis of data

Generally **not** worthy of authorship

Editing manuscript

Providing funding, equipment, material, or lab space

Group leader or manager without providing direct supervision or advice

Routine technical work

First author:

Did the most work toward publication

Other authors typically listed in order of quantity or significance of work performed

Senior author:

Can be first author or supervisor (last author)

Decides coauthors and author order

Assumes responsibility for all data and conclusions in paper
-can be difficult in interdisciplinary work

Submits and corresponds with journal

What responsibility do authors have for conduct of other authors?

If one author is guilty of misconduct, and all authors responsible?

Authors must list affiliations and any conflicts of interest

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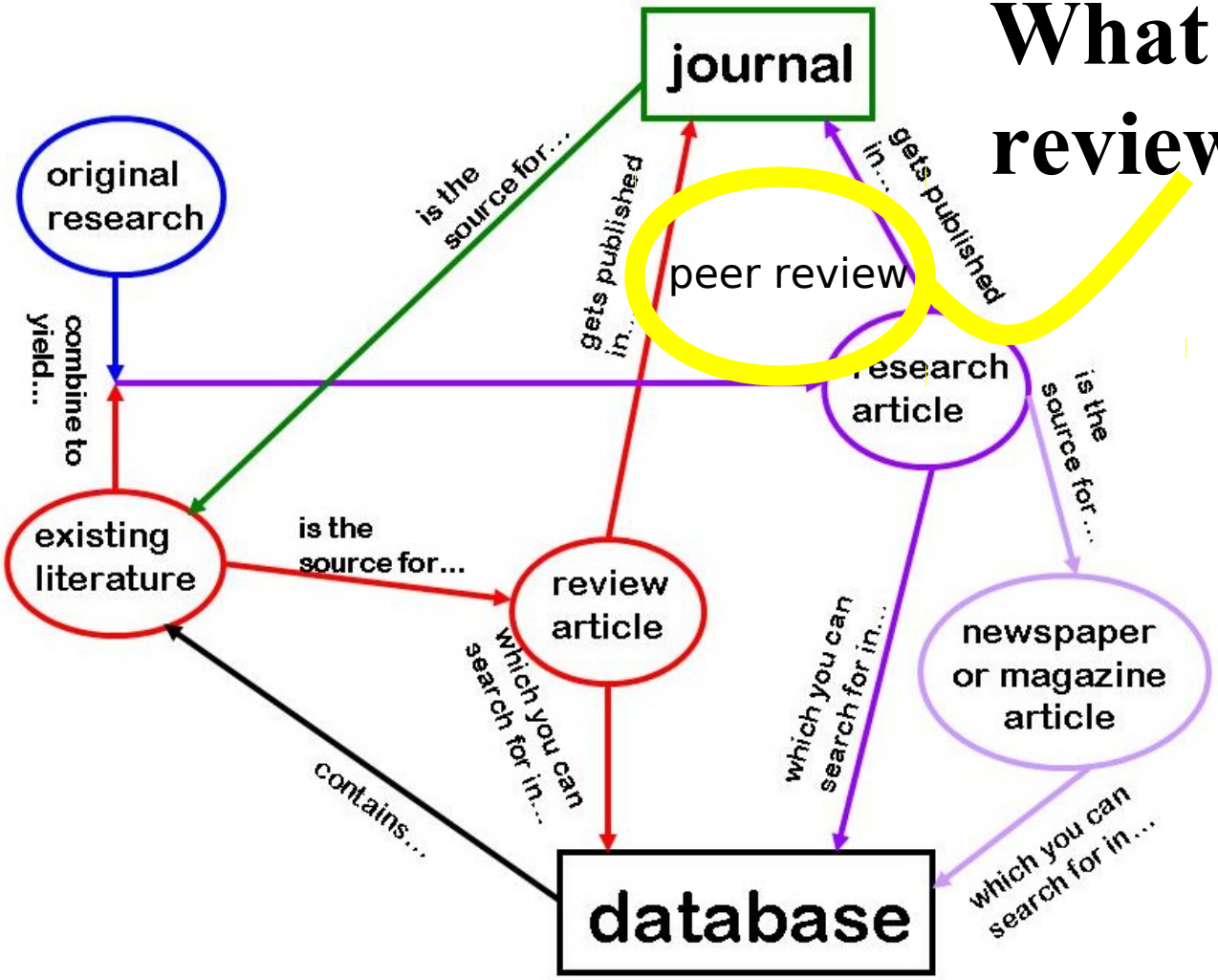
from Cell:

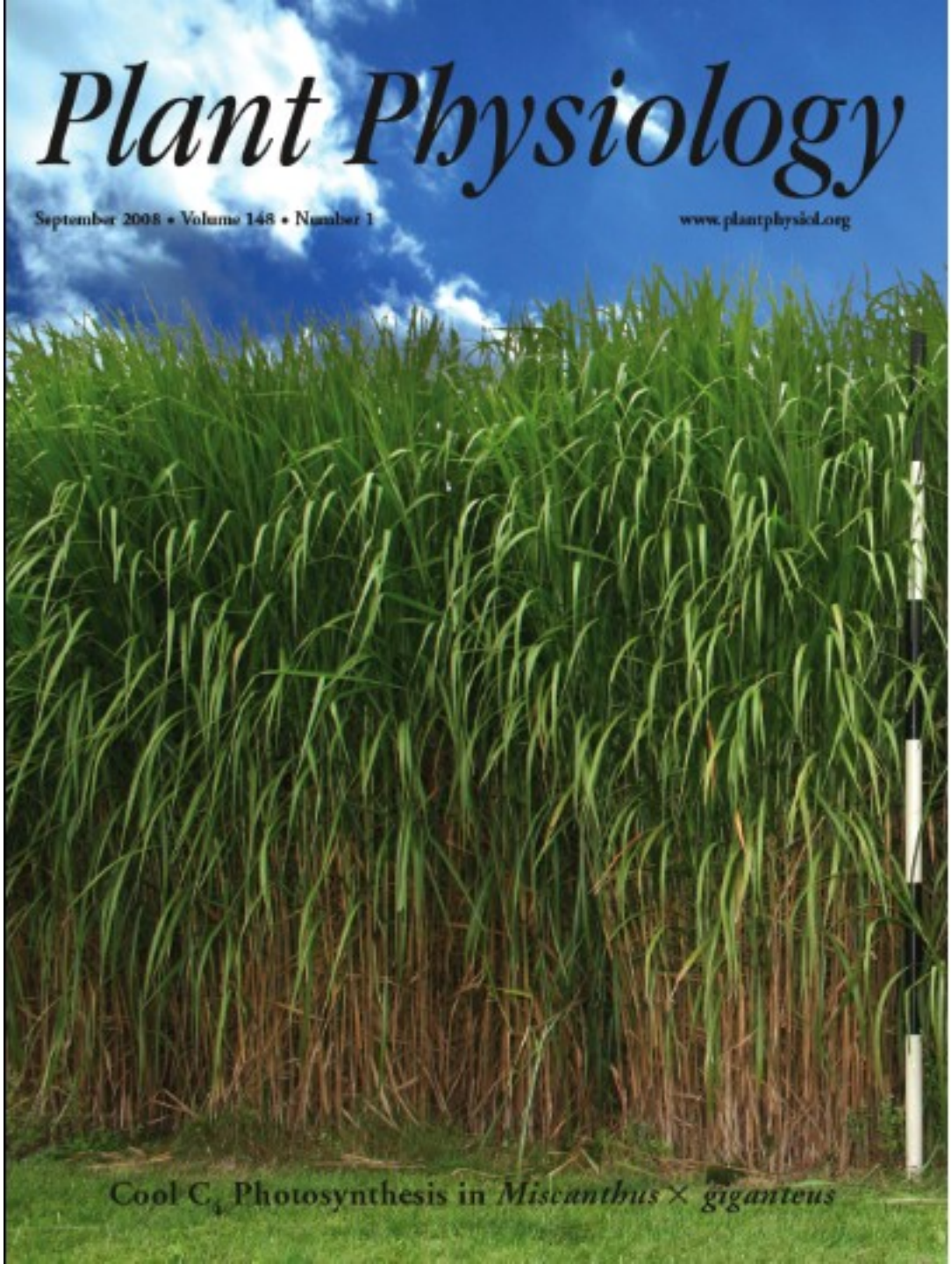
Cell requires all authors to disclose any financial conflict of interest that might be construed to influence the results or interpretation of their manuscript. Authors must declare any such conflict in the cover letter accompanying the manuscript and in the Acknowledgments section of the manuscript itself.

As a guideline, any affiliation associated with a payment or financial benefit exceeding **$10,000** p.a. or 5% ownership of a company or research funding by a company with related interests would constitute a conflict that must be declared.

Building Blocks of Scientific Literature



What is peer review?



What happens between collecting the data, writing the paper, and its publication?

PLANT PHYSIOLOGY September 2008 Volume 148 Number 1

An international journal devoted to basic research into how plants function, ranging from the molecular to the cellular to the whole plant levels, and including the interactions of plants with their biotic and abiotic environments.

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Research Area and Sections

Signal Transduction and Hormone Action
Cell Biology
Development and Hormone Action
Environmental Stress and Adaptation to Stress
Bioinformatics, Breakthrough Technologies, and Genome Analysis
Systems Biology, Molecular Biology, and Gene Regulation
Genetics, Genomics, and Molecular Evolution
Biochemical Processes and Macromolecular Structures
Plants Interacting with Other Organisms
Bioenergetics and Photosynthesis
Whole Plant and Ecophysiology

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Other researchers knowledgeable in the field.

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This can lead to conflicts of interest.

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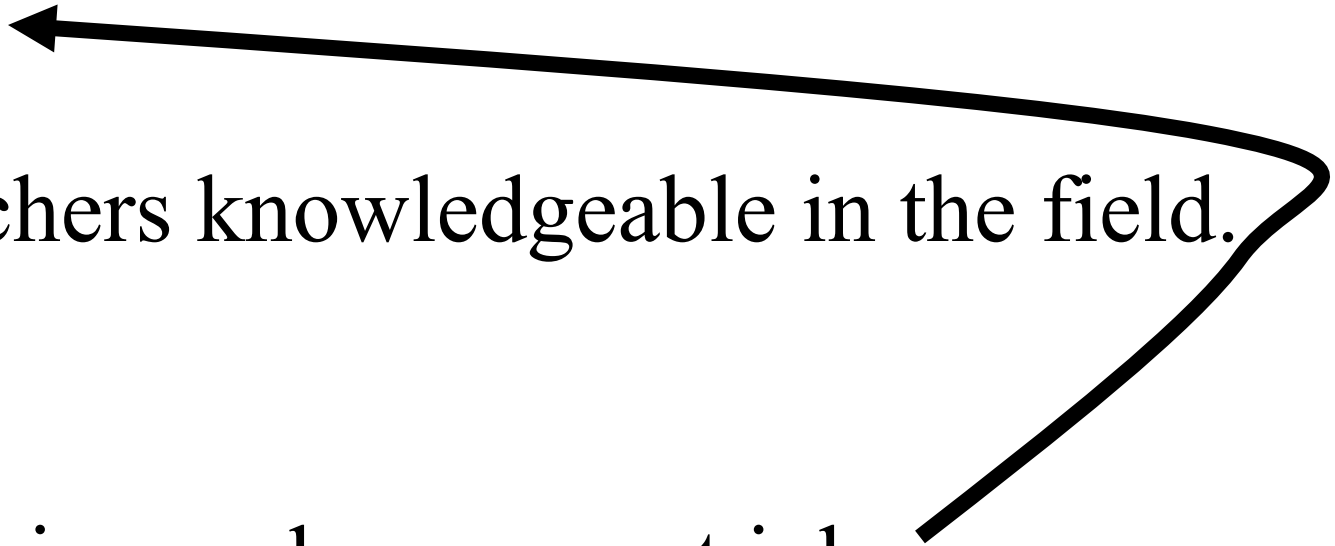
Not every reviewer does a great job.



What makes a “good” or “top ranked” journal?

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Top journals are more selective.

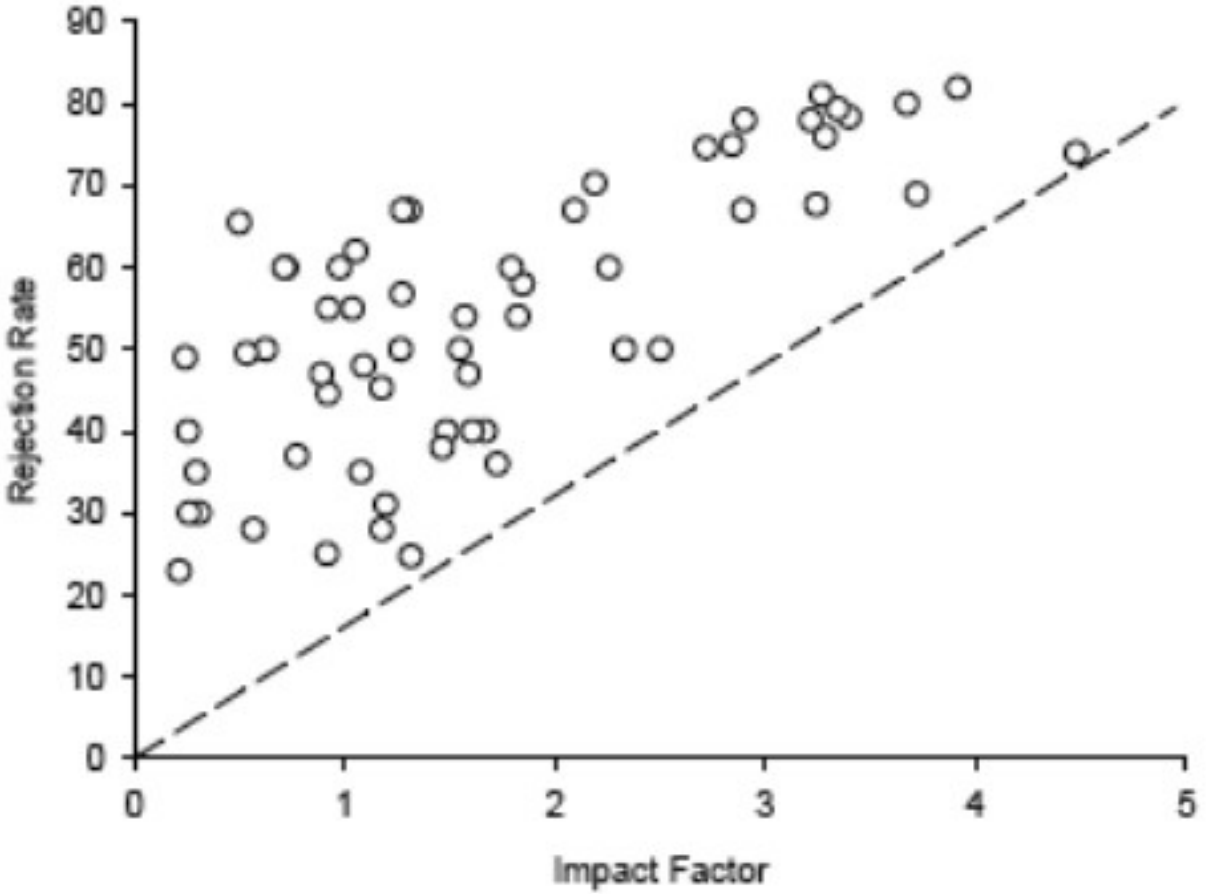

Fig. (1). Scatterplot showing the relationship between journal impact factor in 2004 and the percentage of papers rejected in 2004 for 60 journals listed in the 'Ecology' category by ISI Web of Science (http://www.isiwebofknowledge.com/). The relationship is significantly positive (partial correlation with number of papers published in 2004 held constant: $r = 0.687$, $P<0.001$), but note the generally triangular data distribution with a 'lower-boundedness' indicated by the dashed line through the origin.

Bang for Your Buck: Rejection Rates and Impact Factors in Ecological Journals. The Open Ecology Journal (2008) L.W. Aarssen, T. Tregenza, A.E. Budden, C.J. Lortie, J. Koricheva, R. Leimu 1:14-19

Publishing in a journal with a high impact factor is “very important” for researchers.

Table 1. Percentages of Survey Responses (N=1250) in which Participants were Asked to Rate the Importance of Three Factors when Selecting a Journal for Submitting Manuscripts. [The Web-Based Survey was Designed by the National Centre for Ecological Analysis and Synthesis (NCEAS) Ecobias Working Group (www.ecobias.org), and was Posted Online from May 4th, 2006 to November 4th, 2006]

Factor	Very Important	Important	Somewhat Important	Not Important
High journal impact factor	39.6	46.0	12.6	1.8
High likelihood of acceptance	11.2	44.3	36.7	7.8
High likelihood of rapid decision	25.2	47.0	22.5	5.3

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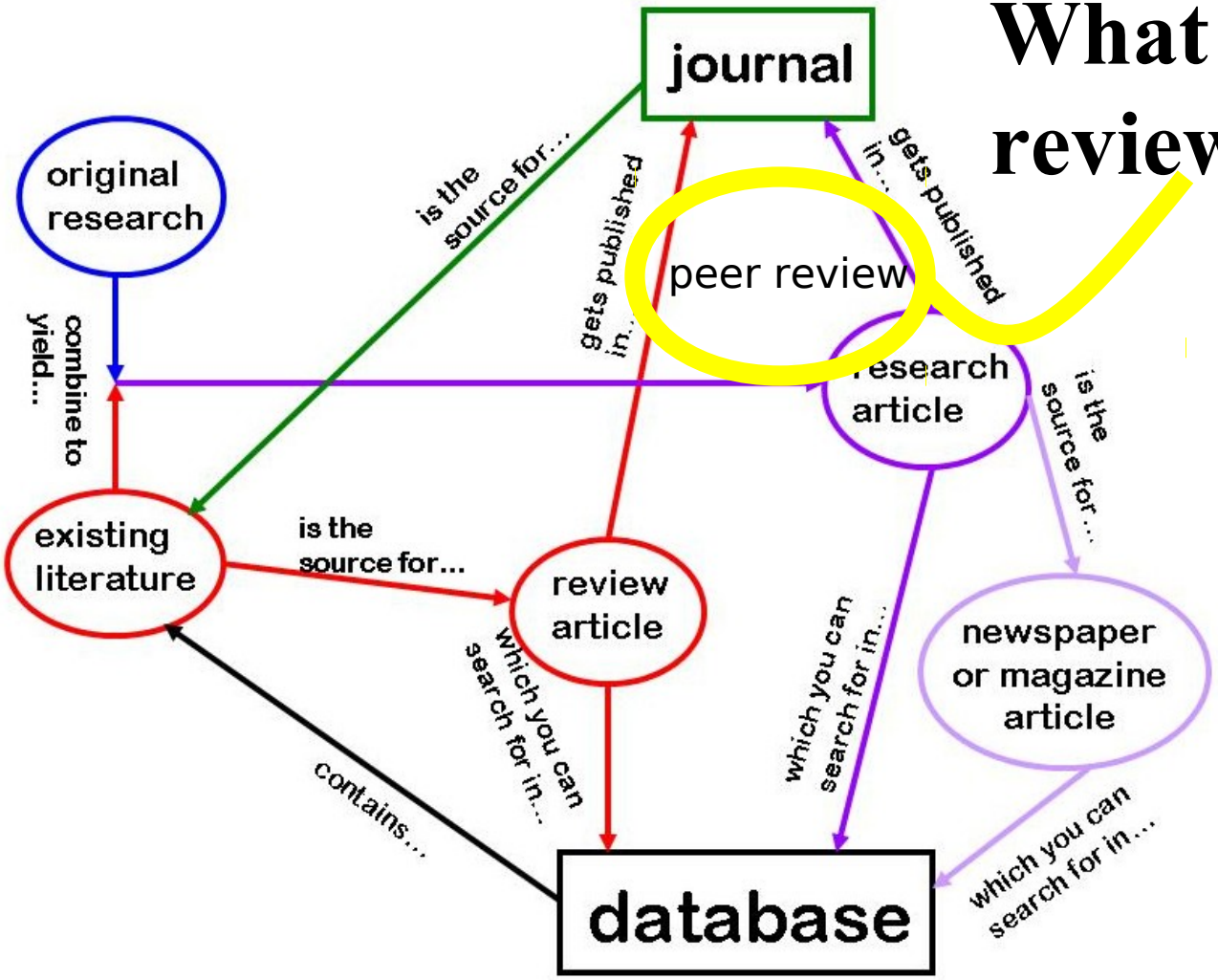
Building Blocks of Scientific Literature



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