



# A Guide to Writing the Model Article

**Stella Hurtley**  
Senior Editor, Science



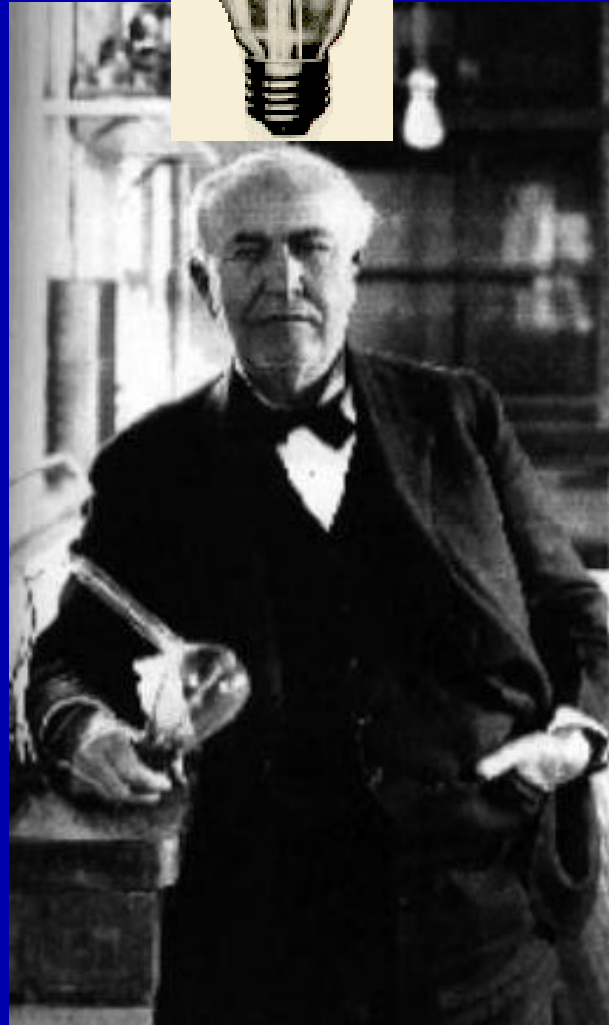
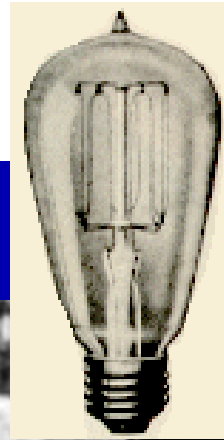
**How to get around  
journal editors!**

AAAS

1848

Established to represent all disciplines of science.

AAAS supports scientific exchange and discussion of science and society issues.



Thomas Edison

1880

# Evolution of the journal



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29 August 2003  
Vol. 301 No. 5637



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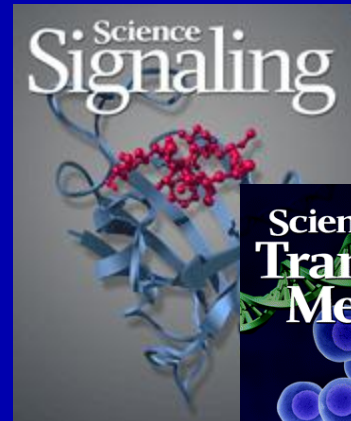
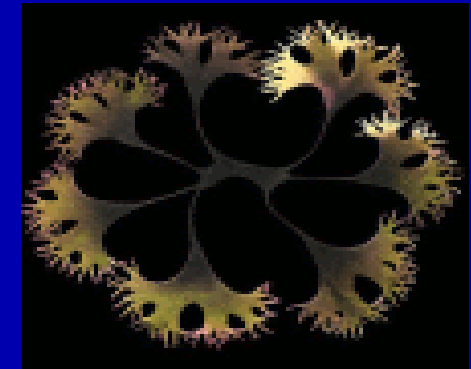
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**The Macaque Genome**

Richard Gibbs and other scientists discuss the significance of the rhesus macaque, and its genome, for biomedicine and evolutionary studies in a special [interactive online version](#) of the pull-out poster published with [the 13<sup>th</sup> April Special Issue](#)



# Competitive






# The review process?

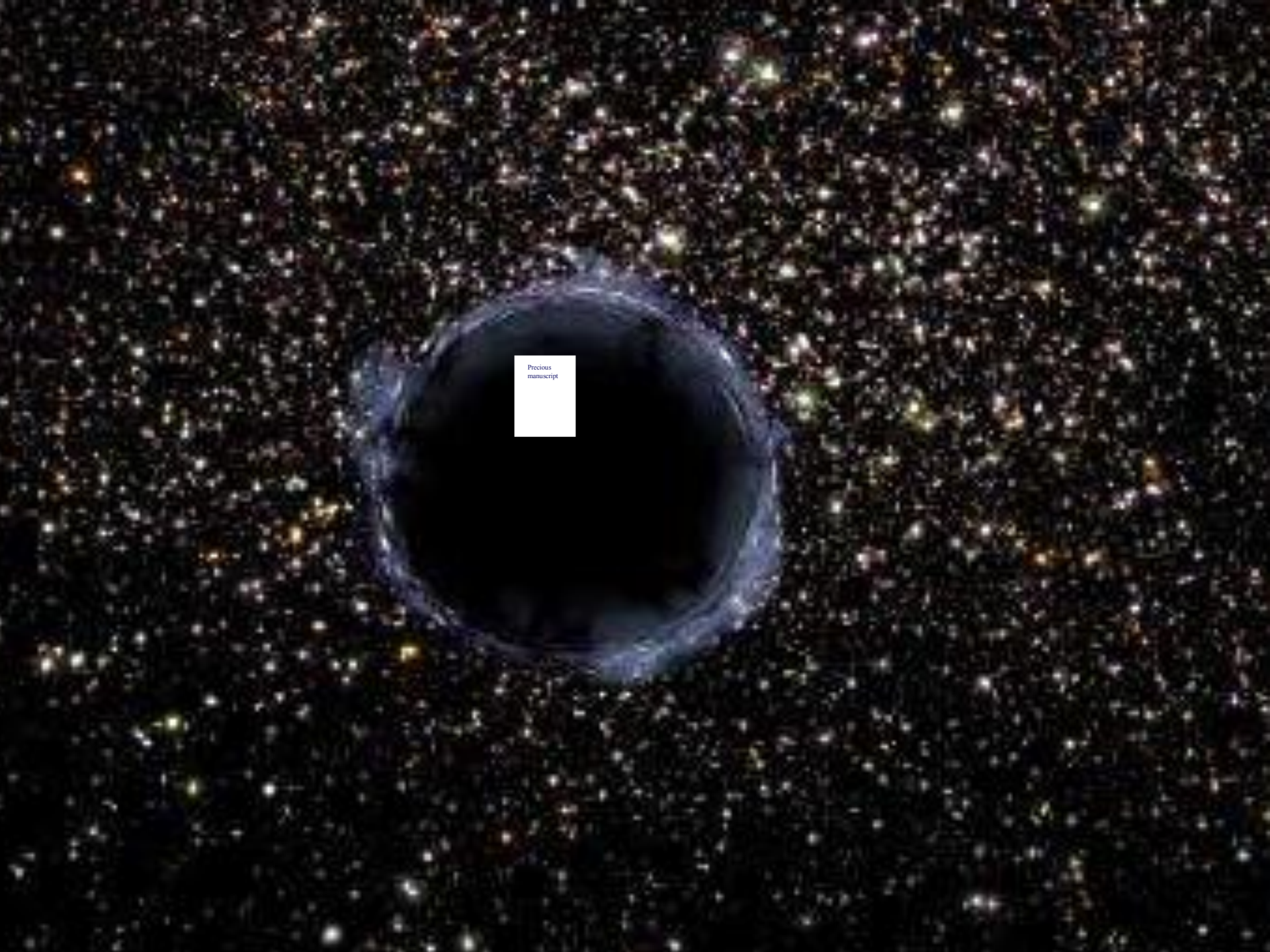


Precious  
manuscript



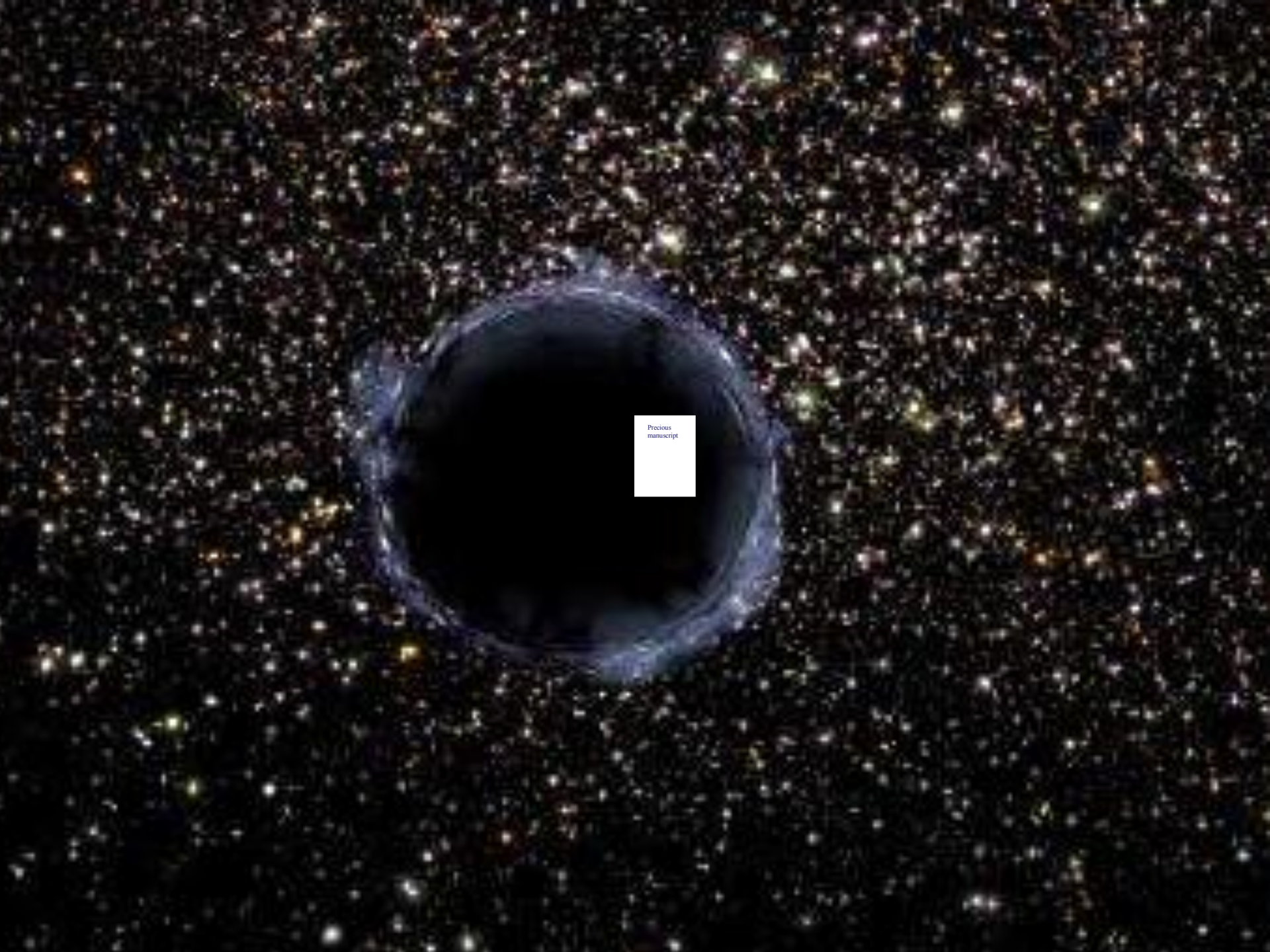
A dark, circular object with a blueish-purple glow, surrounded by a dense field of stars. The object is centered in the lower half of the frame. The background is a vast field of stars of various colors, including white, yellow, and blue, set against a black sky.

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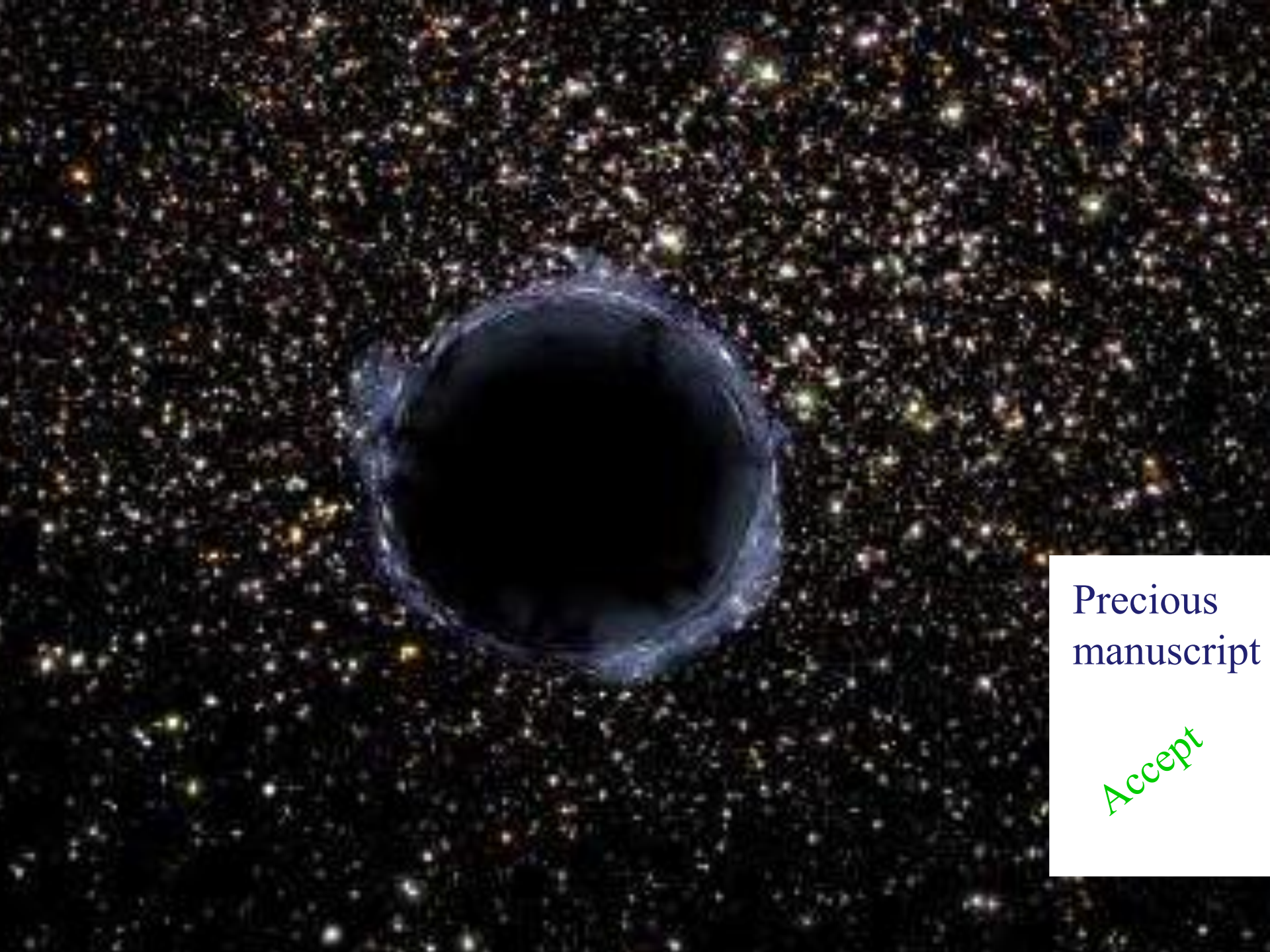


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manuscript

*Reject*



Precious  
manuscript

Accept

What's going on inside?





- 28 Editors, Deputy, Senior, Associate
- PhDs and MDs, with post-doc research experience
- Professional experience in research
- Cover all of physical and biological science
- Backgrounds include physics, chemistry, geology, astronomy, ecology, evolution, molecular biology, plant science, neuroscience, signal transduction, cell biology, immunology, etc.
- We learned 'editing' on the job
- Main offices in Washington DC, and Cambridge UK



**Stages of review**

**How the process works**

**The editor's role**

**Criteria for selecting papers**

# The Author, the Editor and the Referee

*(The Good, The Bad and the Ugly)*

**Preparing for submission**

**After submission.**

**Role of the editor: friend or foe?!**

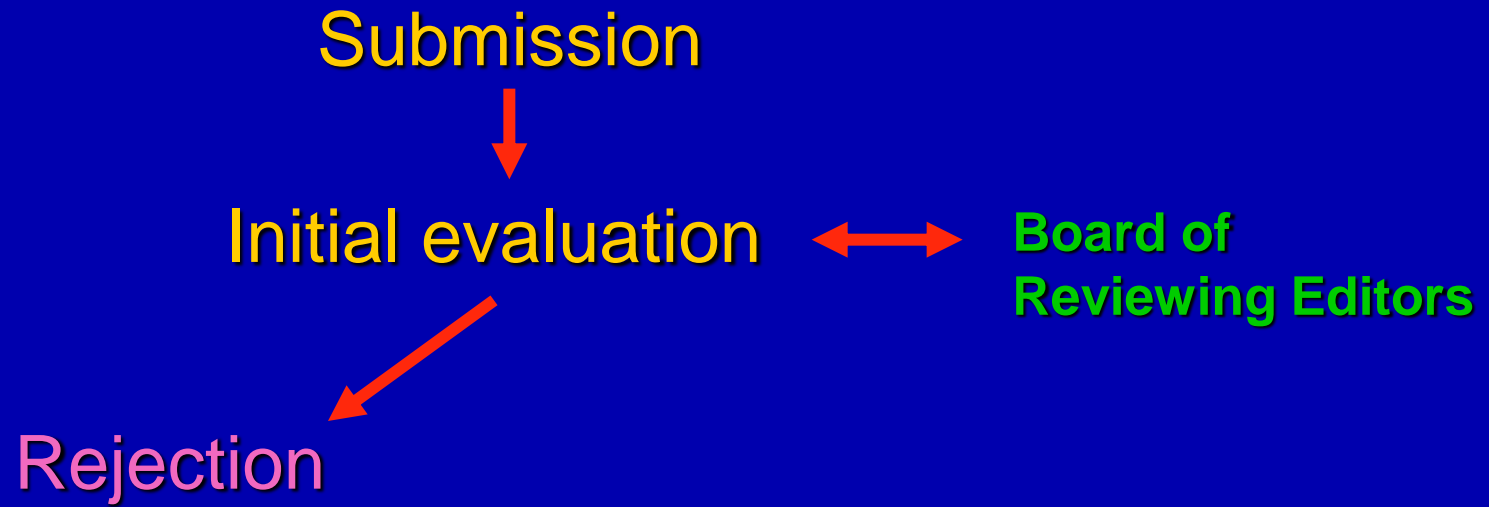
**Revision and publication**

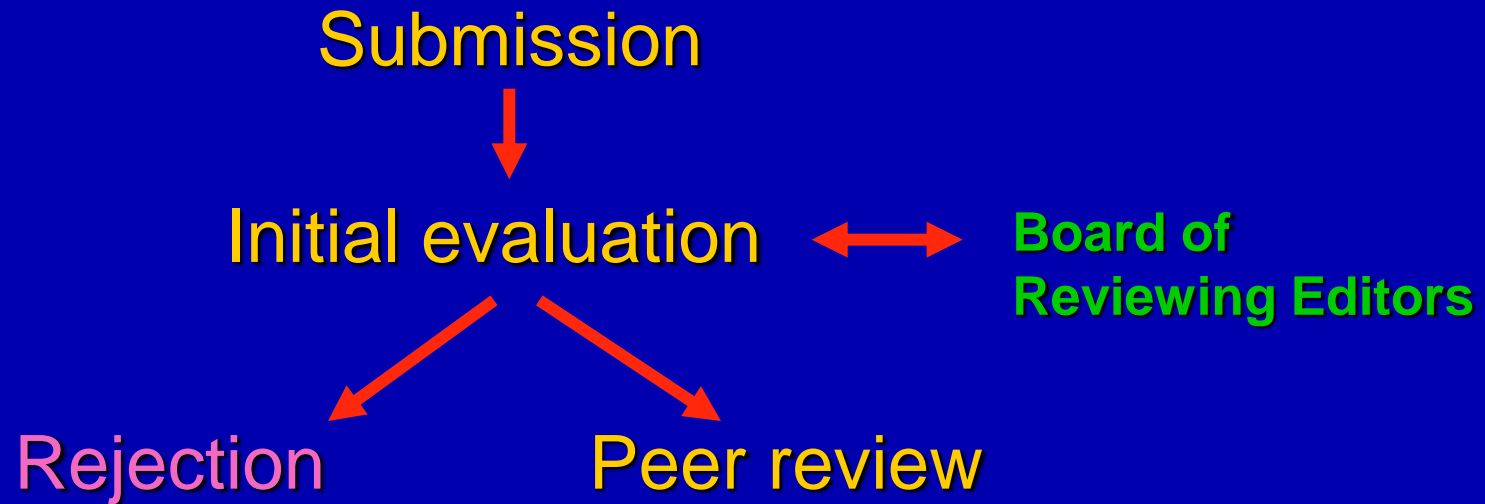
**Pleading your case**

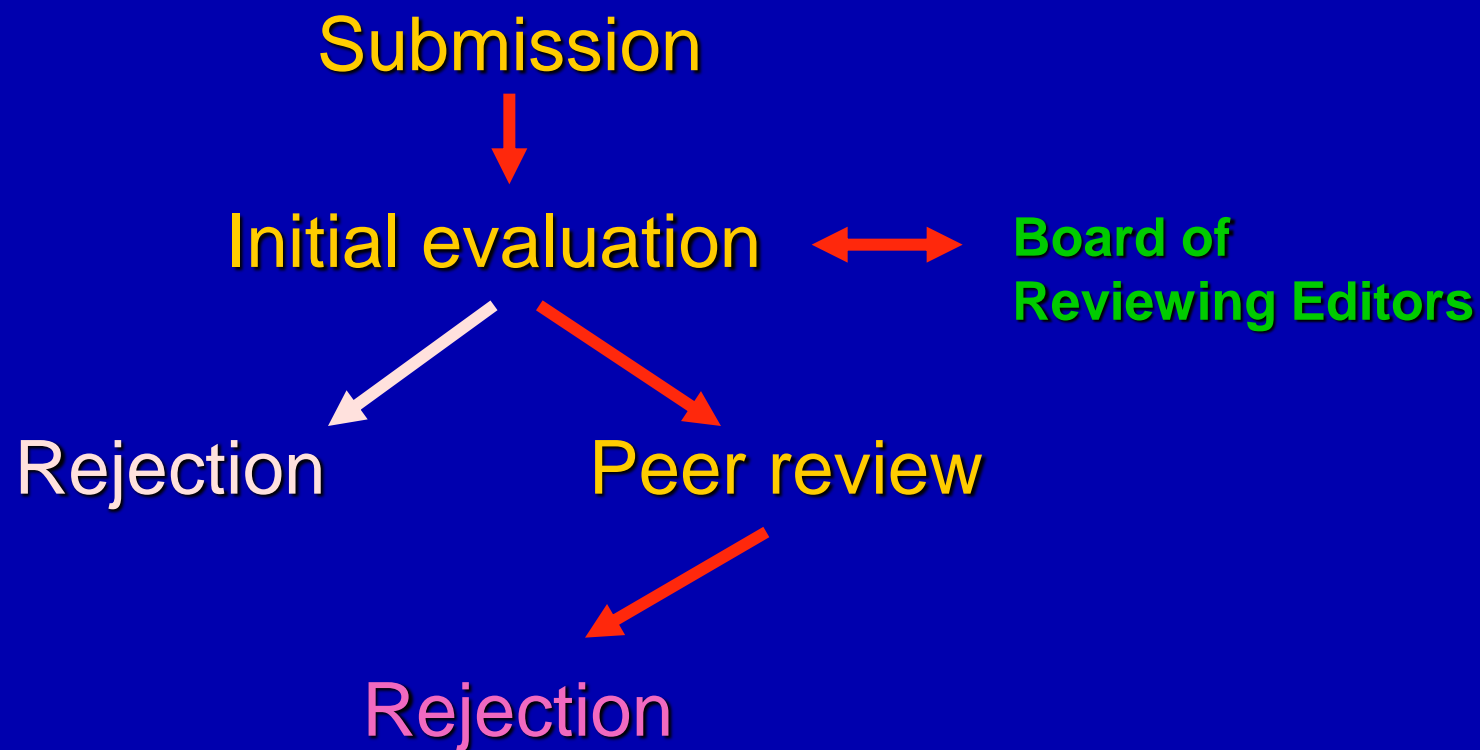
# Submission

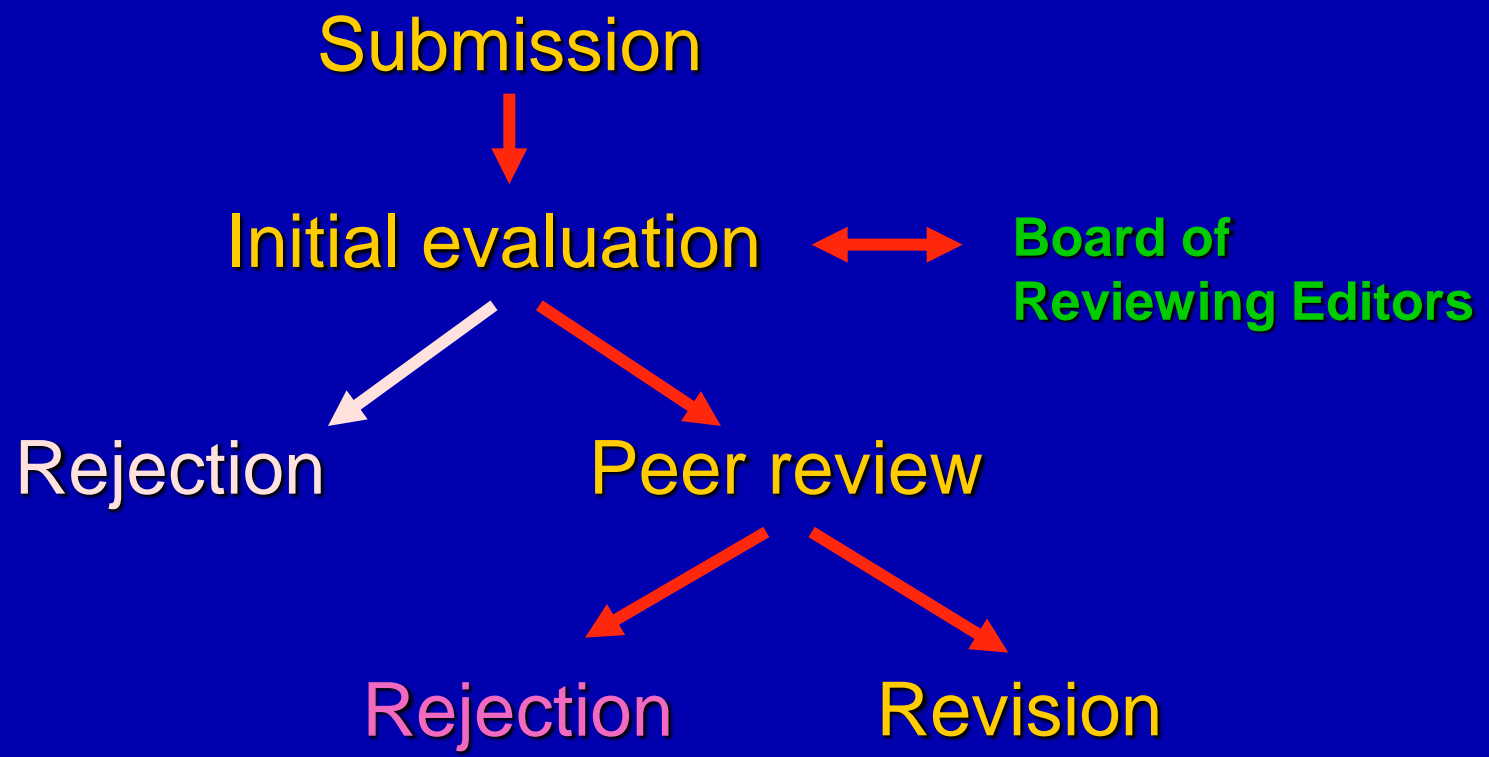


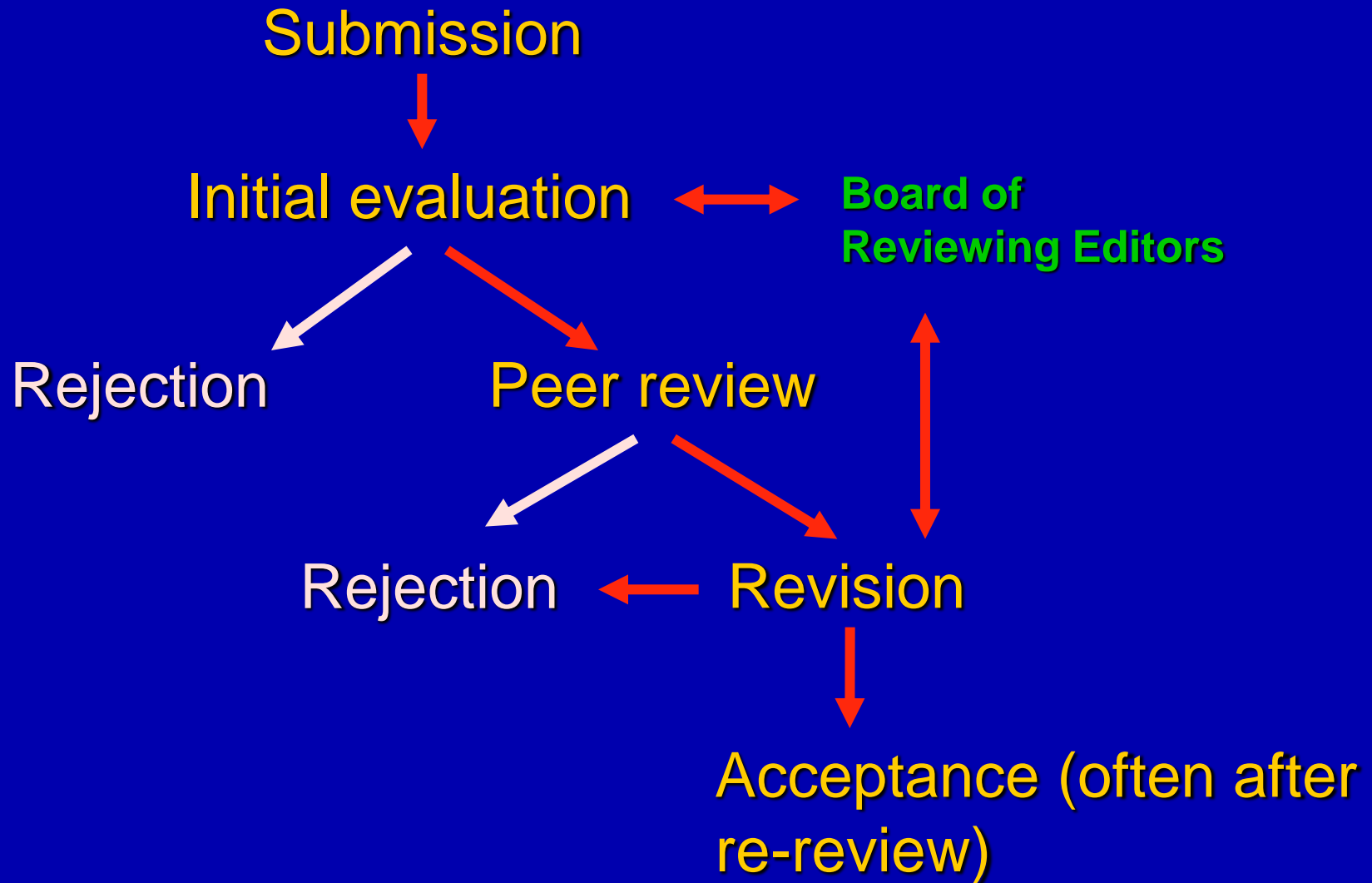








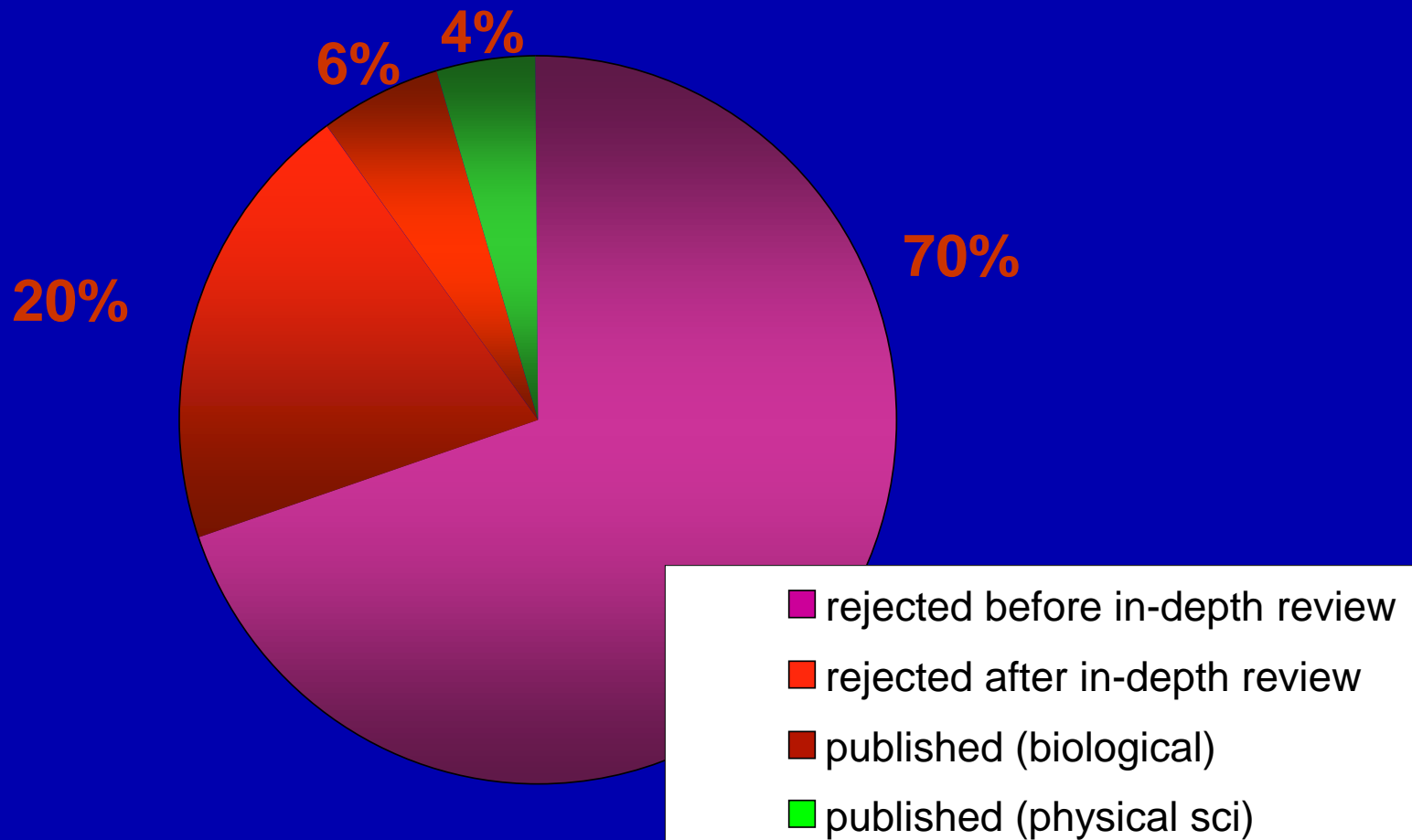




# What Doesn't Matter

- The eminence of the authors
- The prestige of the institution
- Whether you contacted Science before submitting
- Whether you are from the USA
- Whether you are a member of AAAS
- The field of inquiry

# A tough process

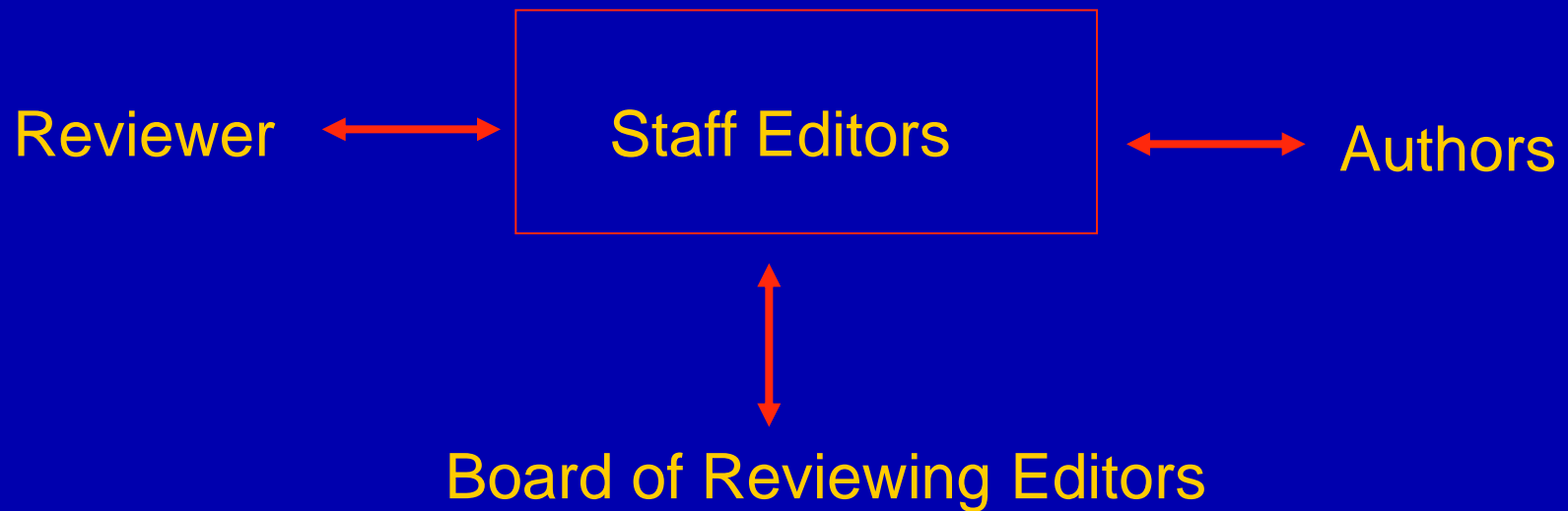




# Peer-review



## Discussion and careful consideration



23 August 2002  
**Science**

Vol. 297 No. 5585  
Pages 1225-1432 59



Submitting a paper.

**Author**

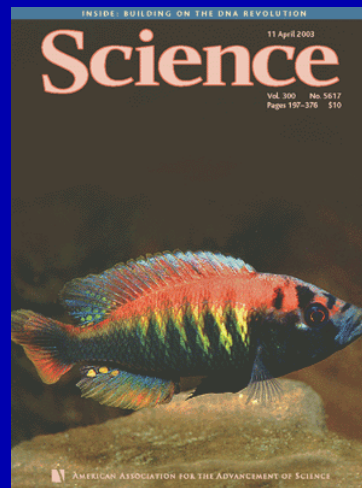


**Editor**



**Reviewer**

**JOURNAL**



**Readers**

**Peers**

**Outside the field**

**Media**

**Public at large**

**Author**

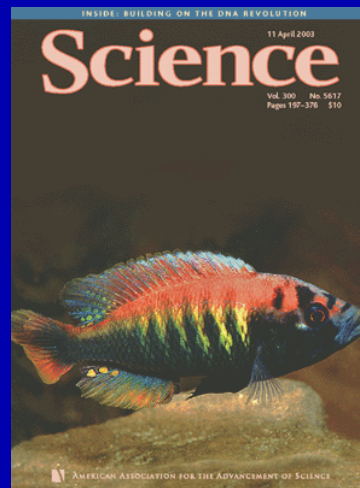


**Editor**



**Reviewer**

**JOURNAL**



**Readers**

Peers

Outside the field

Media

Public at large

**Author**



**Editor**



**Reviewer**

At what point is your work ready?  
Where to submit?



# Should your paper go to SCIENCE?

Is it your best work?

Will it have a big impact?

Will it interest scientists in other fields?

Does it overturn conventional wisdom?



## More than incremental?

- Answer to a long standing question.
- Different way of thinking.
- Proof of principle for important hypothesis
- Important application.



**Author**



**Editor**



**Reviewer**

The work is sufficiently interesting !

**Author**



**Editor**



**Reviewer**

**Plan:** Decide when and how to write up.  
**Who** should write-up the work?!

Author



Editor

**Write with the editor in mind.....**



Reviewer

Author



Editor



Reviewer

Is the importance of this work apparent?

Have I got the message across clearly?

Is it the right length?

Are hype and jargon at a minimum?

Is it comprehensible to a general audience?

Format.

Author



Editor

Good cover letter.



Reviewer

Author



Editor



**Reviewer**

Write with the reviewer in mind..

Author



Editor



Reviewer

Is there enough detail?

Is there too much detail?!

Are interpretations of the data appropriate?

Author



Editor



Reviewer

Is the data clear?  
Quality of figures good?





## What helps.....

Assess both research and presentation

Run your own review process first

Ask for feedback- specialist / non specialist



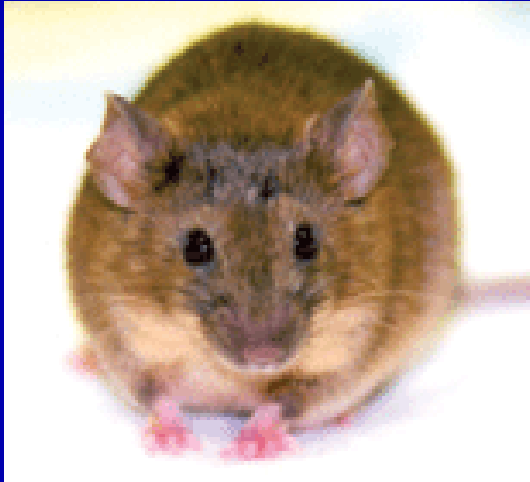
# Internal Review

**Is the main message of the paper clear?**

**Is the importance of the work made clear?**

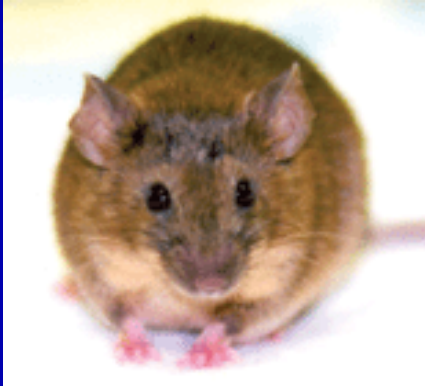
**Is the paper the right length?**

**Are the figures clear?**



## What doesn't help

- The LPU
- Excessive or unfounded speculation
- Repeat examples of a known phenomenon
- Poor presentation, language, grammar.

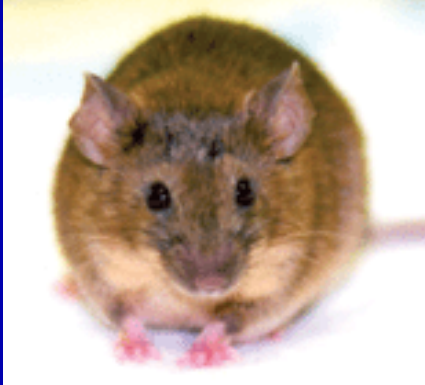


## Common reasons for rejecting a paper: Stage 1

Lacks novelty

Too specialized

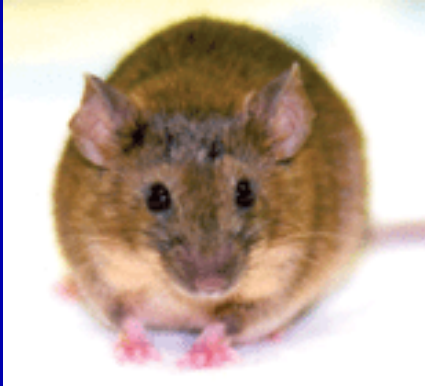
Insufficient advance over previously published work



## Common reasons for rejecting a paper: Stage 2

Technical: Unconvincing data

Main conclusions not supported by the experiments



## Common reasons for rejecting a paper: Stage 2

Observations without interpretations



## Common reasons for rejecting a paper: Stage 2

Interpretations without observations!!

# Reading into Rejection.

Extracting a useful message from the rejection.

Reviewer comments: improving the manuscript for another journal

Criticism: constructive rather than crushing

Argue your case, or submit elsewhere?



# Reviewing papers

See review as a means of providing constructive criticism

Reviewers help guide the editorial decision

# Reviewing papers

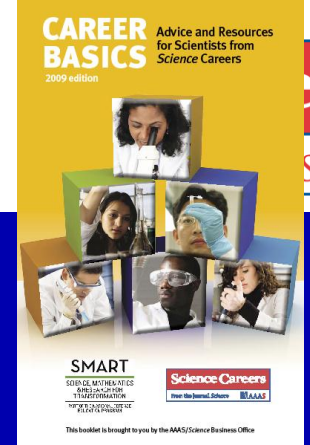
- >Give brief synopsis of the paper**  
one paragraph
- >Analyze quality of experiments**  
explain reasons, support arguments
- >Analyze validity of interpretation**  
explain reasons, support arguments

# Reviewing papers

- >Suggest further experimental directions
- >Discuss what impact the paper might have in its own specialty in a broader context
- >Note any similar publications

# Submitting a Manuscript to *Science*

- Submit online at [www.submit2science.org](http://www.submit2science.org)
- Follow information to contributors
  - Preparing your manuscript:
    - Some flexibility is allowed in length of initial submission
    - Write clearly, proofread and if not a native English speaker ask one to read and edit your manuscript
- Types of Submissions:
  - Research Article ~4500 words, 6 figures and tables
  - Report ~2500 words, 4 figures and tables
  - Brevia ~800 words, 1 figure/table + 800 word SOM with 1 figure or table
  - Policy and Education forums (1000-2000 words)
  - Editorials, Perspectives, Book reviews and Reviews (typically invited)



<http://sciencecareers.org>

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# Qs & AAAs



## Questions and Answers.

We live in a demanding world, a world of questions. Science is being asked to help deliver answers more quickly than ever before. Keeping up-to-date with the latest scientific news and developments is ever more critical at this time in order to succeed. The question is how.

Science magazine, the weekly journal of AAAS, gives you an inside track to a world of scientific information, understanding,

and knowledge. Every week, our members can be astounding discoverers inside the pages of Science and a next up-to-the-minute with privileged access to the latest via Science Online. By becoming a member of AAAS, you too can gain access to this world of scientific might.

AAAS has been helping to answer the questions of science and scientists since 1848, and today is the world's largest

multidisciplinary, nonprofit membership association for science-related professionals. We work hard at advancing science and serving the needs of our members and society – by supporting improved science education, sound science policy, and international cooperation.

So, if the question is how do I become a member, here's the answer. Simply go to our website at [www.aaas.org/join](http://www.aaas.org/join), or in the

U.S. call 202 326 6477 and ask for code Tj in an internationally call +44 (0) 1223 326 515.

And you'll discover the answers are all on the inside. Join AAAS today.



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