When should you think about publishing?

*Before you even start the research.* It is far more important to *ask a good question* than exhaustively answer a question nobody cares about.

If you are addressing an issue widely perceived as important, your chances of being published in a "high-impact" journal are far greater from the outset.

Types of Articles

* Refereed journal articles
* Review articles (*your literature review?*)
* Refereed conference proceedings
Types of Journals

Broadly speaking there are "generalist" and variably "specialist" journals

For example, in science, *Nature* and *Science* are (high impact) generalist journals; *The Journal of Biophysics* is a (lower impact) specialist journal

So what is "impact"?

Impact Factors

From the ISI Journal Citation Reports web page:

The journal impact factor is a measure of the frequency with which the "average article" in a journal has been cited in a particular year.

The impact factor will help you evaluate a journal's relative importance, especially when you compare it to others in the same field.

Impact Factors

Impact Factor = \( \frac{\text{no. of citations}}{\text{total no. articles}} \)

calculated over the last 2 years

This looks simple. Is it too simple?

Challenging the tyranny of impact factors

A recent Commentary aroused a lively debate. In this issue we publish some responses.

*Nature*, 29 May 2003

Distribution of citations for articles published in *Nature* in 5 randomly selected years
Granting agencies and grant “assessors” may use the impact factor of journals in which you publish as an indicator of the quality of your work (i.e. they may form an opinion of the value of your work without actually reading it).

Is this fair? No

Does it happen? Routinely!

Another commonly used measure of the “quality” of a journal is its ranking (on the basis of impact factor) in a particular field.

e.g. PLOS Biology has an impact factor of 13.5 and is ranked no. 1 in the ISI subject category “Biology”
Factors you might consider when selecting a journal to submit to:

- Does your paper contain new knowledge or a new interpretation?
  
  If your answer to this question is NO, then go back and start again (most journals will quickly reject submissions of this type)

- Targetting Journals

- Is your paper of very general interest/significance? Or is it of more interest to a specialist group?
  
  If the former, your work might be appropriate for a high-impact generalist journal; if the latter, it may be appropriate to target a good quality specialist journal

- Targetting Journals

- Does your paper describe a big advance? Or an incremental one?
  
  Big advance - target a "big" journal
  
  Incremental advance - aim more modestly

- Targetting Journals

- What Publishers Want (?)

They want well-written submissions that:

(i) Fall clearly within the field(s) prescribed by the journal (see the journal web site for this information).

(ii) Provide an advance in knowledge.

Your manuscript will be more desirable to the editor if it contains a "big" advance in knowledge and/or addresses a current and topical area.
What Publishers Want (??)

They want well-written submissions that:

(iii) Conform to all the journals format requirements.

All modern journals have web pages from which you can access/download information ("Instructions for Authors")

Criteria Used by Editors

This where it can be very frustrating.....

Most good journal receive many more submissions that they can publish. Thus, the editors can usually afford to be very choosy.

Criteria Used by Editors

All quality journals use a form of the "peer review process"

- You submit your manuscript (on-line for many journals)
- The journal sends you an acknowledgement of receipt (often an email)

Criteria Used by Editors

- You wait (1-3 months!) while the manuscript is reviewed by 1-3 external reviewers

There are only two times I feel stress: Day and Night.
Then…

The editor and the editorial board consider the reviews and contact you with a decision which might or might not make you feel something like this…..

Possible outcomes:

(i) Rejection

First the tears

Then the anger

“This isn’t merely a rejection, it’s a bloody execution!”

You will need to work your way past this stage…

Around about now this could look attractive…

Stress Reduction Kit

Bang Head Here

Directions:
1. Place kit on FIRM surface.
2. Follow directions in circle of kit.
3. Repeat step 2 as necessary, or until unconscious.
4. If unconscious, cease stress reduction activity.

Rejected?

Editors are supposed to act as “informed judges”, weighing up the strengths of your arguments against any criticisms raised by the reviewers.

However, when editors are stretched for time and the reviewers are unpaid “experts” of variable quality, the peer review process may appear to treat your manuscript with “cavalier disregard”
Rejected?

Options?

(i) Move on to the next journal (incorporate changes to counter any criticisms encountered)

(ii) If you have a case, write to the editor with a calm, clear and fact-centred rebuttal of the criticisms (good luck)

(iii) If not satisfied with the editor's response to your rebuttal, write to the Managing Editor

Other (More Desirable) Outcomes:

(ii) You are requested to submit a revised manuscript (this is good!)

(iii) You obtain unqualified acceptance (go buy a lottery ticket!)

Key Features of Well Written Articles

This is to some extent subjective, but probably include:

★ A clear, concise and meaningful title which creates interest

What’s wrong with this one?
Inhibition of Porcine Pancreatic Elastase by 7-Substituted 4-Chloro-3-Ethoxyisocoumarins: Structural Characteristics of Modeled Noncovalent Complexes Relate to the Measured Inhibition Kinetics

Better?
Clusterin promotes amyloid plaque formation in a mouse model of Alzheimer’s disease
Key Features of Well Written Articles

★ An Introduction that briefly provides a context for the work presented and explicitly identifies the gap in knowledge addressed

If appropriate:
★ Detailed descriptions of materials and methods used (sufficient for other researchers to reproduce your work)
★ Results presented in a logical and clear way

Key Features of Well Written Articles

★ A critical and scholarly Discussion of the state of the field and the contribution of this piece of work to the advancement of knowledge

e.g. What are the (i) implications of your results and (ii) limitations of previous work and of the current report?
What needs to be done in the future to solve remaining uncertainties?

The Writing Process

What is the one thing you need but often can't get enough of (for writing)?

Time

You must make this available so that you can really concentrate

The Writing Process

As a rough guide, it usually takes me about one week (full time) to draft a paper

“[Image: In this office, everyone is treated with respect and dignity. Thank God we can still be rude to computers!]"
The Writing Process

As a rough guide, it usually takes me about one week (full time) to draft a paper.

- It then may take weeks-months after this to chase down any missing results, recalcitrant co-authors, references, etc.

Features of Well Written Articles

When constructing your draft:

- Pay conscious attention to the points raised in Key Features of Well Written Articles.
- Actively seek out critical readers (co-authors or peers) to provide comments on your drafts (pre-submission review is essential).
- Try and anticipate points of criticism from reviewers.

Questions