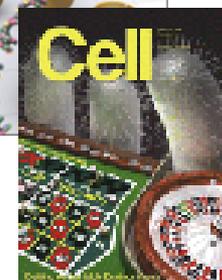


# How to write a Great Paper and Get it Accepted by a Good Journal

*From title to references*  
*From submission to revision*

Presented by: Anthony Newman  
Elsevier, Amsterdam



# Workshop Outline

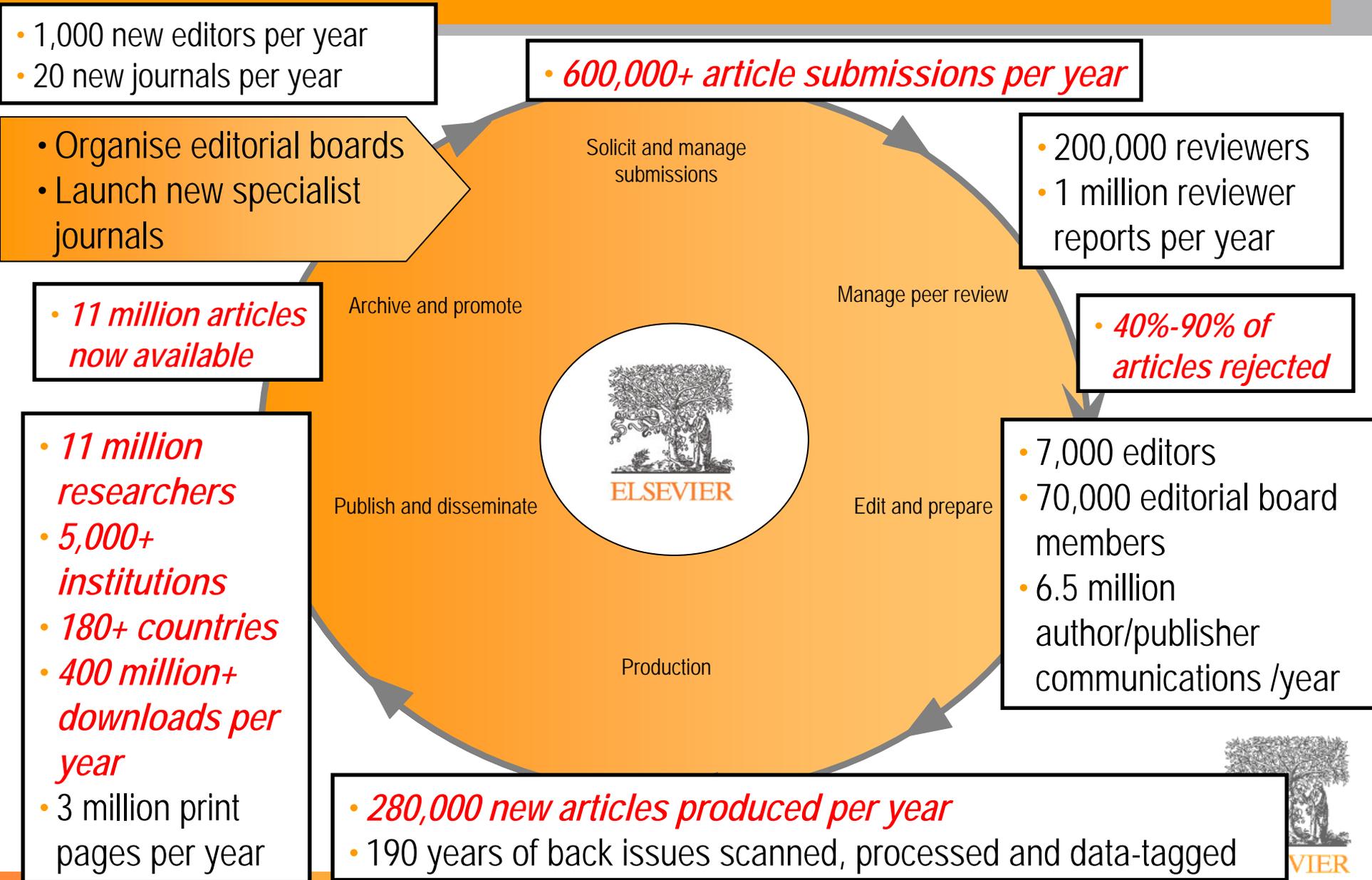
## How to get Published

- Before you begin
- Select your audience
- The article structure
- The review and editorial process

## What not to do... (author ethics)



# Elsevier Journal publishing volume



# Why publish?

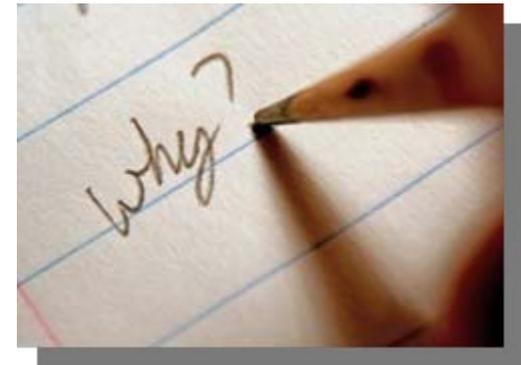
**Publishing** is one of the necessary steps **embedded in the** scientific **research process**. It is also necessary for graduation and career progression.

## What to publish:

- **New and original results or methods**
- **Reviews or summaries of** particular subject
- **Manuscripts that advance the knowledge** and understanding in a certain scientific field

## What NOT to publish:

- Reports of no scientific interest
- Out of date work
- **Duplications** of previously published work
- Incorrect/unacceptable conclusions



You need a **STRONG** manuscript to present your contributions to the scientific community

# What is a strong manuscript?

- Has a novel, clear, useful, and exciting message
- Presented and constructed in a logical manner
- Reviewers and editors can grasp the scientific significance easily

**Editors and reviewers are all busy scientists –  
make things easy to save their time**



Always keep in mind that ...

**.... your paper is your passport  
to your community !**



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# How To Get Your Article Published

*Before you start*



# Refine your Search strategies

Too many researchers have abandoned all the value of libraries when they stopped going there physically!

There is more than 

Learn what online resources are available at your institute, and learn to search in a clever way.

# Search Methodology of Researchers

- **“The search methodology of the researchers can be characterized by “trial and error.”** They have no planned search strategy, but start at random, experimenting both with the actual words and sources to use.
- ... they never use manuals, etc., for instructions. **The idea of contacting the library for help does not occur to them.** They have little or no knowledge of the finer points of many information sources
- ... researchers seldom use the library Web page as starting point ... , and instead use bookmarks/shortcuts added by themselves
- **... researchers have difficulties in identifying correct search terms. Searches are often unsuccessful.”**
- **“For many researchers, especially in the sciences, Google is the first choice for information – all kinds of information.”**
- **“Some [researchers] even state having moved from subject specific databases to Google.”**

(Haglund and Olson, 2008)



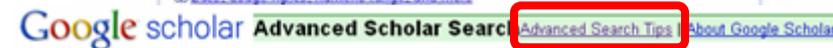
# Use the advanced search options

- Within Google and Google Scholar use the advanced searches and check out the Search Tips.

- In ScienceDirect, Scopus, WoS/WoK and other databases use proximity operators:

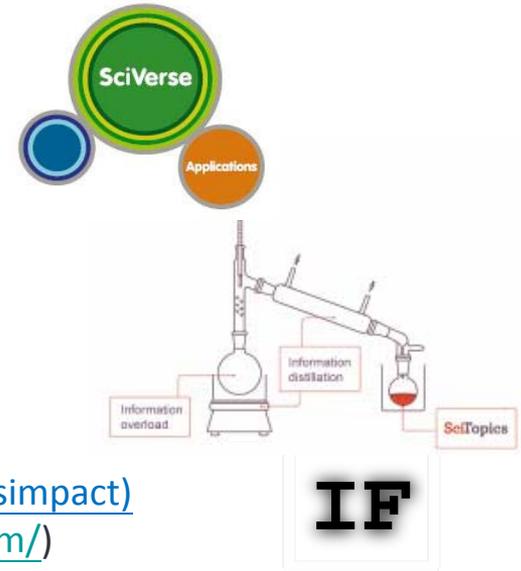
- w/n ← Within - (non order specific)
- pre/n ← Precedes - (order specific)

E.g. wind w/3 energy

A screenshot of the Google Advanced Search form. It includes fields for 'Find web pages that have...' (all these words, this exact wording or phrase, one or more of these words) and 'But don't show pages that have...' (any of these unwanted words). There are also dropdown menus for 'Results per page' (set to 10), 'Language' (any language), and 'File type' (any format). A 'Search' button is at the bottom right.A screenshot of the Google Scholar Advanced Scholar Search form. It includes options for 'Find articles' (with all of the words, with the exact phrase, with at least one of the words, without the words, where my words occur) and 'Author' (Return articles written by). There are also fields for 'Publication' (Return articles published in) and 'Date' (Return articles published between). The 'Subject Areas' section has a radio button for 'Return articles in all subject areas' and a list of subject areas with checkboxes: Biology, Life Sciences, and Environmental Science; Business, Administration, Finance, and Economics; Chemistry and Materials Science; Engineering, Computer Science, and Mathematics; Medicine, Pharmacology, and Veterinary Science; Physics, Astronomy, and Planetary Science; Social Sciences, Arts, and Humanities.

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*Chemical Engineering Science*, Volume 60, Issue 13, July 2005, Pages 3469-3476  
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*Bioresource Technology*, Volume 83, Issue 1, May 2002, Pages 40483  
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- Transparent conductors as solar energy materials: A panoramic review** • Review article  
*Solar Energy Materials and Solar Cells*, Volume 91, Issue 17, October 2007, Pages 1529-1598  
Granqvist, C.G.  
Cited by SciVerse Scopus (141)
- Heat transfer-A review of 2003 literature** • Review article  
*International Journal of Heat and Mass Transfer*, Volume 49, Issue 40271, February 2006, Pages 451-534  
Goldstein, R.J.; Ibele, W.E.; Patankar, S.V.; Simon, T.W.; Kuehn, T.H.; Strykowski, P.J.; Tamma, K.K.; Heberlein, J.V.R.; Davidson, J.H.; Bischof, J.; Kulacki, F.A.; Kortshagen, U.; Garrick, S.; Srinivasan, V.
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<input type="checkbox"/> 2 <b>Protein folding and association: Insights from the interfacial and thermodynamic properties of hydrocarbons</b>	Nicholls, A., Sharp, K.A., Honig, B.	1991	<i>Proteins: Structure, Function and Genetics</i> 11 (4), pp. 281-296	4828
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<input type="checkbox"/> <b>SCOP: A structural classification of proteins database for the investigation of</b>	Murzin, A.G., Brenner, S.E., Hubbard,	1995	<i>Journal of Molecular Biology</i> 247 (4), pp. 536-540	3686
<input type="checkbox"/> 2003 <i>Nucleic Acids Research</i> 31 (13), pp. 2408-2415				3604

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<input type="checkbox"/> 2 <b>On the role of surface tension in the stabilization of globular proteins</b>	Lin, T.-Y., Timasheff, S.N.	1996	<i>Protein Science</i> 5 (2), pp. 372-381	141
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<input type="checkbox"/> 3 <b>Japanese encephalitis virus infection initiates endoplasmic reticulum stress and an unfolded protein response</b>	Su, H.-L., Liao, C.-L., Lin, Y.-L.	2002	<i>Journal of Virology</i> 76 (9), pp. 4162-4171	126
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<input type="checkbox"/> 4 <b>Effects of buried charged groups on cysteine thiol ionization and reactivity in Escherichia coli thioredoxin: Structural and functional characterization of mutants of Asp 26 and Lys 57</b>	Dyson, H.J., Jeng, M.-F., Tennant, L.L., Slaby, I., Lindell, M., Cui, D.-S., Kuprin, S., Holmgren, A.	1997	<i>Biochemistry</i> 36 (9), pp. 2622-2636	111



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doi:10.1016/j.ccr.2007.05.008 | How to Cite or Link Using DOI

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### Review

## Defining the Role of mTOR in Cancer

David A. Guertin<sup>1, 2</sup>, David M. Sabatini<sup>1, 2, 3</sup>

<sup>1</sup> Whitehead Institute for Biomedical Research and Massachusetts Institute of Technology Department of Biology, 9 Cambridge Center, Cambridge, MA 02141, USA

<sup>2</sup> The Broad Institute, 7 Cambridge Center, Cambridge, MA 02141, USA

<sup>3</sup> Center for Cancer Research and Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139, USA

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Inhibitors of mTOR overcome drug resistance from topois...  
*Cancer Letters*, Volume 311, Issue 1, 1 December 2011, Pages 20-28

#### Abstract

The present study was performed to investigate the possible role of mTOR inhibitors in restoring chemosensitivity to adriamycin/cisplatin and elucidate the underlying mechanism. Combining adriamycin/cisplatin with torisel synergistically inhibited the cell proliferation in human oropharyngeal

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and derivatives of one such molecule, rapamycin (from discuss recent progress in understanding mTOR signaling.

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<input type="checkbox"/> 3 mTORC1 activates SREBP-1c and uncouples lipogenesis from gluconeogenesis (Proceedings of the National Academy of Sciences of the United States of America (2010) 107, 8, (3281-3282) DOI: 10.1073/pnas.1000323107)	Laplante, M., Sabatini, D.	2010	Proceedings of the National Academy of Sciences of the United States of America 107 (16), pp. 7617	0

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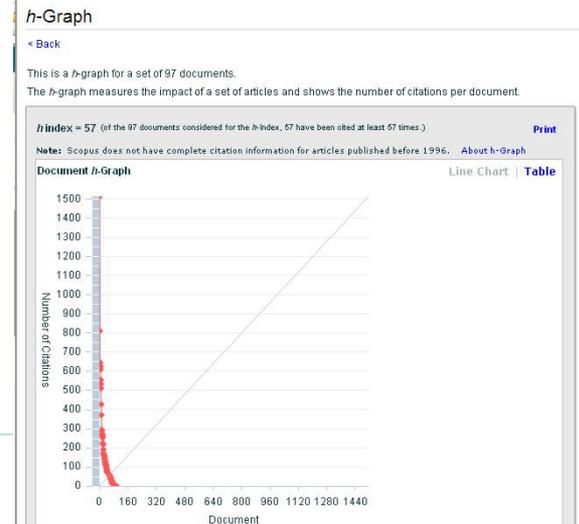
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3	<input type="checkbox"/> 2011 A haploid genetic screen identif...				1	1			1
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# Questions to answer before you write

Think about **WHY** you want to publish your work.

- Is it **new and interesting**?
- Is it a current **hot topic**?
- Have you **provided solutions** to some difficult problems?
- Are you **ready** to publish at this point?

If all answers are “yes”, then start preparations for your manuscript



# What type of manuscript?

- Full articles/Original articles;
- Letters/Rapid Communications/Short communications;
- Review papers/perspectives;
- *Poster to present at conference – special case*

Self-evaluate your work: Is it sufficient for a full article? Or are your results so thrilling that they need to be shown as soon as possible?

Ask your supervisor and colleagues for advice on manuscript type.  
Sometimes outsiders see things more clearly than you.

# Select the best journal for submission

- Look at **your references** – these will help you narrow your choices.
- **Review** recent publications in **each candidate journal**. Find out the hot topics, the accepted types of articles, etc.
- Ask yourself the following questions:
  - Is the journal **peer-reviewed**?
  - Who is this journal's **audience**?
  - What is the journal's **Impact Factor**?
- **DO NOT gamble by submitting your manuscript to more than one journal at a time.**
  - International ethics standards prohibit multiple/simultaneous submissions, and editors DO find out! (Trust us, they DO!)

# What is the Impact Factor (IF)?

## Impact Factor

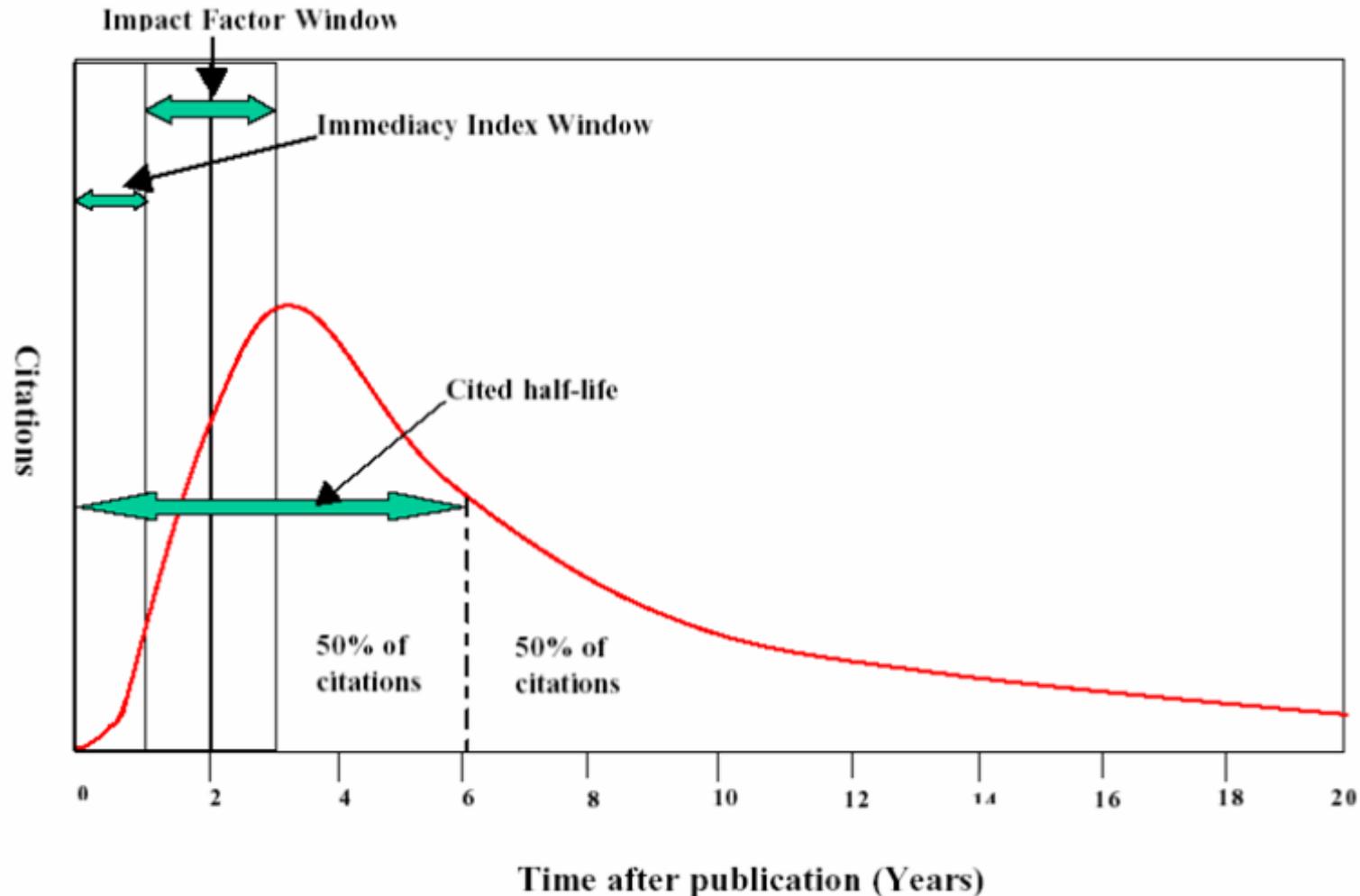
*[the average annual number of citations per article published]*

- For example, the 2008 impact factor for a journal is calculated as follows:
  - $A$  = the number of times articles published in 2006 and 2007 were cited in indexed journals during 2008
  - $B$  = the number of "citable items" (usually articles, reviews, proceedings or notes; not editorials and letters-to-the-Editor) published in 2006 and 2007
  - 2008 impact factor =  $A/B$

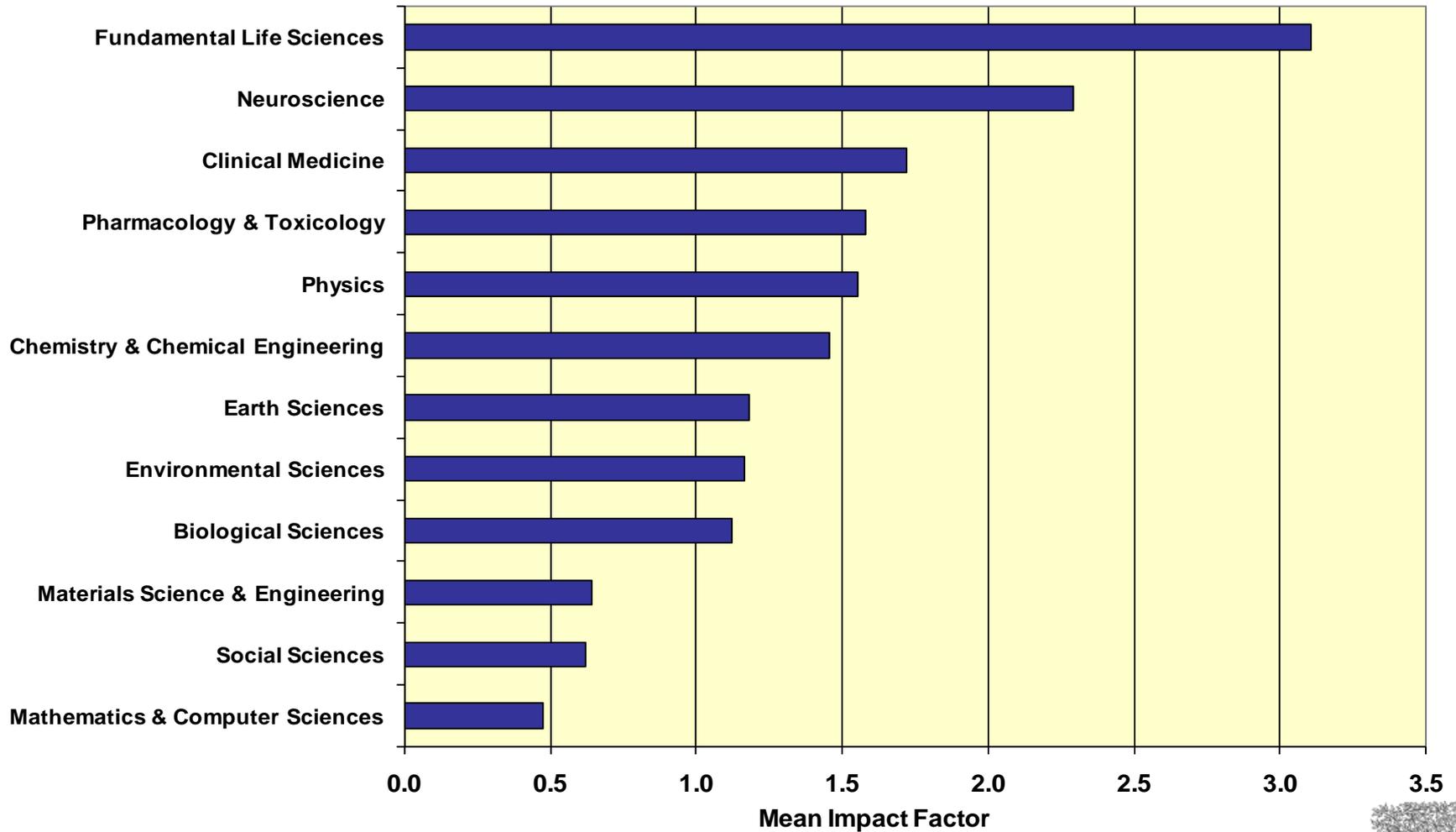
e.g. 600 citations = 2  
150 + 150 articles



# Impact Factor and other bibliometric parameters



# Influences on Impact Factors: Subject Area



# Identify the right audience for your paper

- **Identify the sector of readership/community for which a paper is meant**
- **Identify the interest of your audience**
- **Is your paper of local or international interest**



# Choose the right journal

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***“The following problems appear **much too frequently**”***

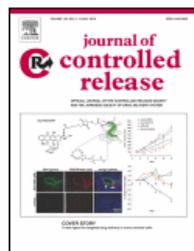
- *Submission of papers which are clearly out of scope*
- *Failure to format the paper according to the Guide for Authors*
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- *Inadequate standard of English*
- *Resubmission of rejected manuscripts without revision*

– Paul Haddad, Editor, *Journal of Chromatography A*



# Read the 'Guide to Authors'- Again and again!

- Stick to the Guide for Authors in your manuscript, **even in the first draft** (text layout, nomenclature, figures & tables, references etc.).  
In the end it will save you time, and also the editor's.
- Editors (and reviewers) do not like wasting time on poorly prepared manuscripts. It is a sign of disrespect.



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# General Structure of a Research Article

- Title
- Abstract
- Keywords

**Make them easy for indexing and searching! (informative, attractive, effective)**

- **Main text (IMRAD)**
  - Introduction
  - Methods
  - Results
  - And
  - Discussions

**Journal space is not unlimited.  
Your reader's time is also scarce.  
Make your article as concise as possible  
- more difficult than you imagine!.**

- Conclusion
- Acknowledgement
- References
- Supplementary Data





# Why Is Language Important?

**Save your editor and reviewers the trouble of guessing what you mean**

**Complaint from an editor:**

**“[This] paper fell well below my threshold. I refuse to spend time trying to understand what the author is trying to say. Besides, I really want to send a message that they can't submit garbage to us and expect us to fix it. My rule of thumb is that if there are more than 6 grammatical errors in the abstract, then I don't waste my time carefully reading the rest.”**



# Scientific Language – Overview

**Write with clarity, objectivity, accuracy, and brevity.**

- **Key to successful scientific writing is to be alert for common errors:**
  - Sentence construction
  - Incorrect tenses
  - Inaccurate grammar
  - Not using English

**Check the Guide for Authors of the target journal for language specifications**

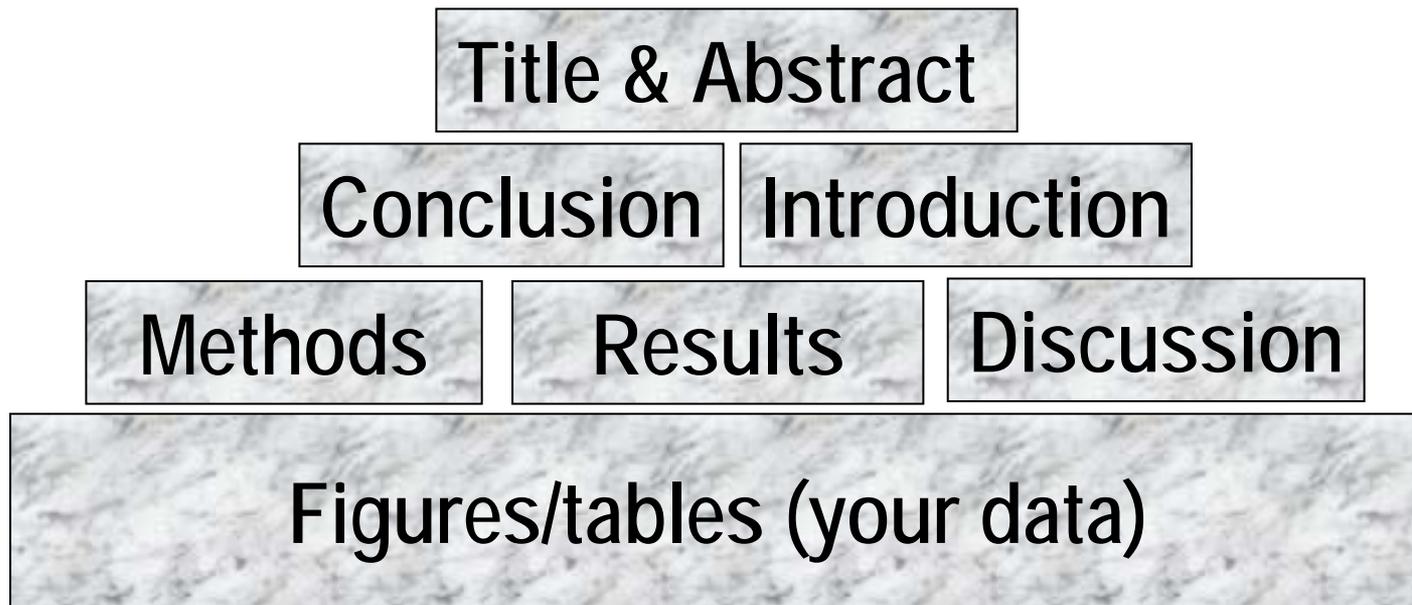
# Scientific Language – Sentences

- Write direct and short sentences
- One idea or piece of information per sentence is sufficient
- Avoid multiple statements in one sentence

An example of what NOT to do:

“If it is the case, intravenous administration should result in that emulsion has higher intravenous administration retention concentration, but which is not in accordance with the result, and therefore the more rational interpretation should be that SLN with mean diameter of 46nm is greatly different from emulsion with mean diameter of 65 nm in entering tumor, namely, it is probably difficult for emulsion to enter and exit from tumor blood vessel as freely as SLN, which may be caused by the fact that the tumor blood vessel aperture is smaller.”

# The process of writing – building the article



# Authorship

- Policies regarding authorship can vary
- One example: the International Committee of Medical Journal Editors (“Vancouver Group”) declared that an author must:
  1. **substantially contribute** to conception and design, or acquisition of data, or analysis and interpretation of data;
  2. **draft** the article or **revise** it critically for important intellectual content; and
  3. **give their approval** of the final full version to be published.
  4. **ALL three** conditions must be fulfilled to be an author!

All others would qualify as “Acknowledged Individuals”

# Authorship - Order & Abuses

- **General principles for who is listed first**
  - First Author
    - Conducts and/or supervises the data generation and analysis and the proper presentation and interpretation of the results
    - Puts paper together and submits the paper to journal
  - Corresponding author
    - The first author or a senior author from the institution
      - Particularly when the first author is a PhD student or postdoc, and may move to another institution soon.
- **Abuses to be avoided**
  - Ghost Authors: leaving out authors who should be included
  - Gift Authors: including authors who did not contribute significantly

# Acknowledged Individuals

**Recognize those who helped in the research, but do not qualify as authors (you want them to help again, don't you?)**

Include individuals who have assisted you in your study:

Advisors

Financial supporters

Proofreaders

Typists

Suppliers who may have given materials



# Title

- A good title should contain the **fewest** possible words that **adequately** describe the contents of a paper.
- **Effective titles**
  - Identify the main issue of the paper
  - Begin with the subject of the paper
  - Are accurate, unambiguous, specific, and complete
  - Are as short as possible
    - Articles with short, catchy titles are often better cited
  - Do not contain rarely-used abbreviations
  - Attract readers - Remember: readers are the potential authors who will cite your article

# Title: Examples

Original Title	Revised	Remarks
Preliminary observations on the effect of Zn element on anticorrosion of zinc plating layer	Effect of Zn on anticorrosion of zinc plating layer	Long title distracts readers. Remove all <u>redundancies</u> such as “observations on”, “the nature of”, etc.
Action of antibiotics on bacteria	Inhibition of growth of mycobacterium tuberculosis by streptomycin	Titles should be <u>specific</u> . Think to yourself: “How will I search for this piece of information?” when you design the title.
Fabrication of carbon/CdS coaxial nanofibers displaying optical and electrical properties via electrospinning carbon	Electrospinning of carbon/CdS coaxial nanofibers with optical and electrical properties	“English needs help. The title is nonsense. All materials have properties of all varieties. You could examine my hair for its electrical and optical properties! You MUST be specific. I haven’t read the paper but I suspect there is something special about these properties, otherwise why would you be reporting them?” – <i>the Editor-in-chief</i>

# Abstract

## Tell readers what you did and the important findings

- One paragraph (between 50-300 words) often plus Highlight bullet points
- Advertisement for your article
- A clear abstract will strongly influence if your work is considered further

Graphite intercalation compounds (GICs) of composition  $C_xN(SO_2CF_3)_2 \cdot \delta$  are prepared under ambient conditions in 48% hydrofluoric acid, using  $K_2MnF_6$  as an oxidizing reagent. The stage 2 GIC product structures are determined using powder XRD and modeled by fitting one dimensional electron density profiles.

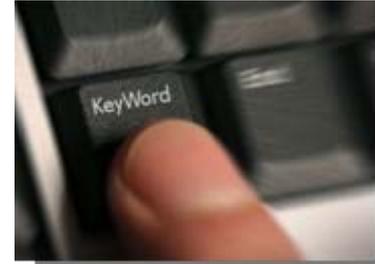
A new digestion method followed by selective fluoride electrode elemental analyses allows the determination of free fluoride within products, and the compositional  $x$  and  $\delta$  parameters are determined for reaction times from 0.2 to 500 h.

What has been done

What are the main findings

# Keywords

In an “electronic world, keywords determine whether your article is found or not!



Avoid making them

- too general (“drug delivery”, “mouse”, “disease”, etc.)
- too narrow (so that nobody will ever search for it)

Effective approach:

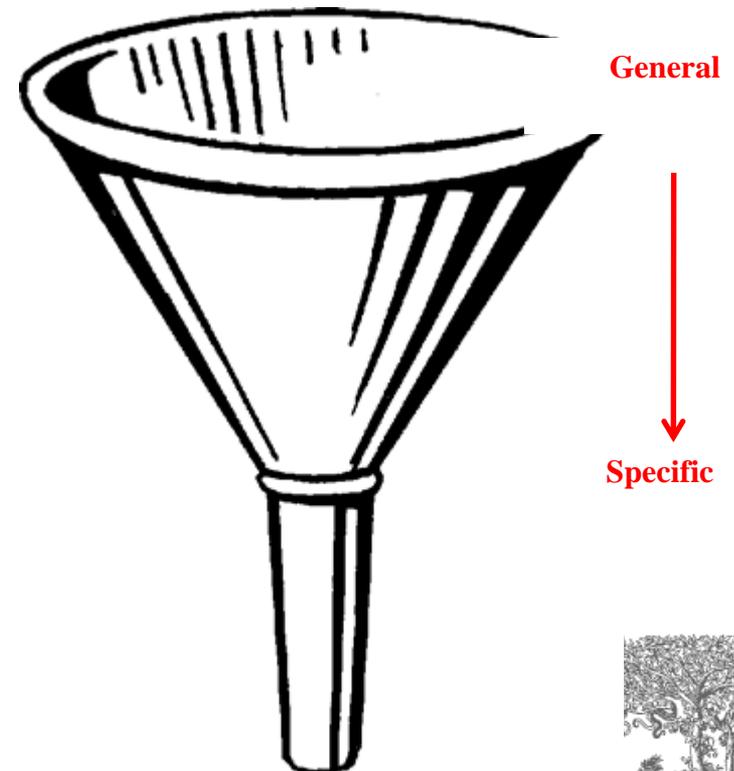
Look at the keywords of articles relevant to your manuscript  
Play with these keywords, and see whether they return relevant papers, neither too many nor too few

# Introduction

**The place to convince readers that you know why your work is relevant, also for them**

**Answer a series of questions:**

- What is the problem?
- Are there any existing solutions?
- Which one is the best?
- What is its main limitation?
- What do you hope to achieve?



# Pay attention to the following

- **Before you present your new data, put them into perspective first**
- **Be brief, it is not a history lesson**
- **Do not mix introduction, results, discussion and conclusions. Keep them separate**
- **Do not overuse expressions such as “novel”, “first time”, “first ever”, “paradigm shift”, etc.**
- **Cite only relevant references**
  - Otherwise the editor and the reviewer may think you don't have a clue where you are writing about

# Methods / Experimental

- **Include all important details so that the reader can repeat the work.**
  - Details that were previously published can be omitted but a general summary of those experiments should be included
- **Give vendor names (and addresses) of equipment etc. used**
- **All chemicals must be identified**
  - Do not use proprietary, unidentifiable compounds without description
- **Present proper control experiments**
- **Avoid adding comments and discussion.**
- **Write in the past tense**
  - Most journals prefer the passive voice
- **Consider use of Supplementary Materials**
  - Documents, spreadsheets, audio, video, .....

*Reviewers will criticize incomplete or incorrect descriptions, and may even recommend rejection*



# Ethics Committee approval

- **Experiments on humans or animals must follow applicable ethics standards**
  - e.g. most recent version of the Helsinki Declaration and/or relevant (local, national, international) animal experimentation guidelines
- **Approval of the local ethics committee is required, and should be specified in the manuscript**
- **Editors can make their own decisions as to whether the experiments were done in an ethically acceptable manner**
  - Sometimes local ethics approvals are way below internationally accepted standards



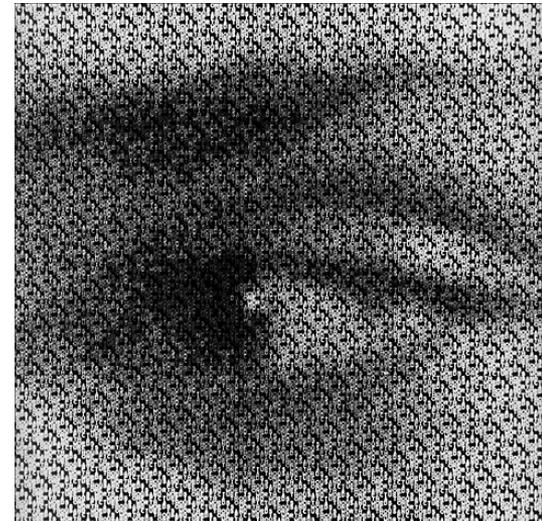
# Results – what have you found?

- The following should be included
  - the **main findings**
    - Thus not all findings
    - Findings from experiments described in the Methods section
  - Highlight findings that **differ** from findings in previous publications, and **unexpected** findings
  - Results of the **statistical analysis**

# Results – Figures and tables

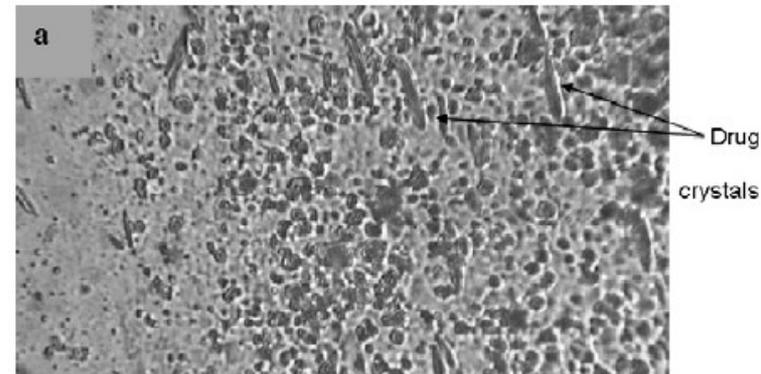
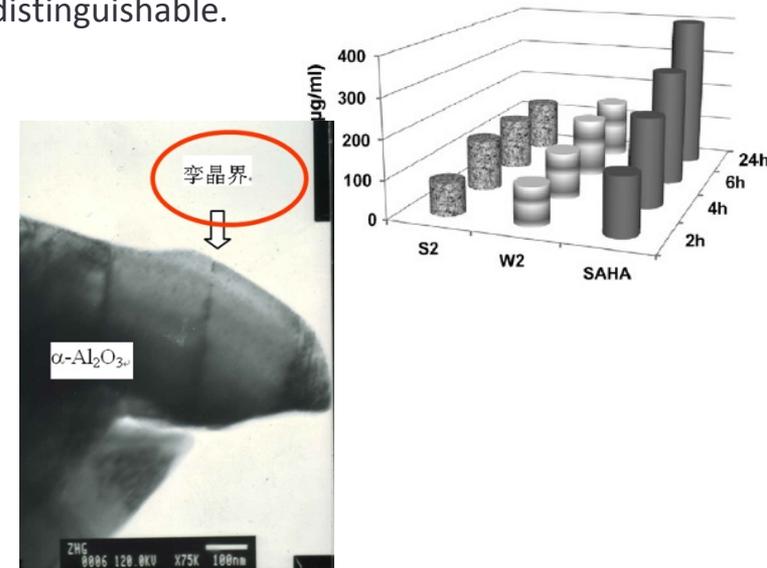
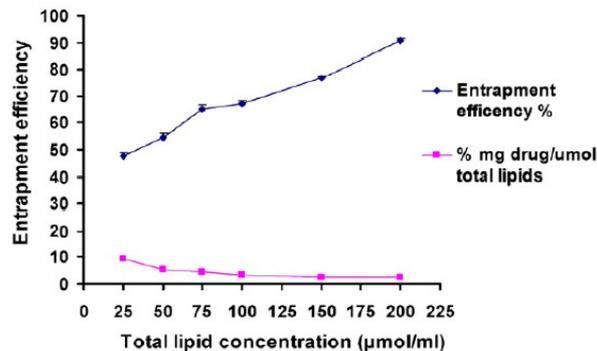
- **Illustrations are critical, because**
  - Figures and tables are the most efficient way to present results
  - Results are the driving force of the publication

*"One Picture is Worth a  
Thousand Words"  
Sue Hanauer (1968)*



# Results – Appearance counts!

- Un-crowded plots
  - 3 or 4 data sets per figure; well-selected scales; appropriate axis label size; symbols clear to read; data sets easily distinguishable.
- Each photograph must have a scale marker of professional quality in a corner.
- Text in photos / figures in English
  - Not in French, German, Chinese, ...
- Use color *ONLY* when necessary.
  - If different line styles can clarify the meaning, then never use colors or other thrilling effects.
- Color must be visible and distinguishable when printed in black & white.
- Do not include long boring tables!



# Discussion – what do the results mean?

- **It is the most important section of your article. Here you get the chance to SELL your data!**
  - Many manuscripts are rejected because the Discussion is weak
- **Check for the following:**
  - How do your results relate to the original question or objectives outlined in the Introduction section?
  - Do you provide interpretation for each of your results presented?
  - Are your results consistent with what other investigators have reported? Or are there any differences? Why?
  - Are there any limitations?
  - Does the discussion logically lead to your conclusion?
- **Do not**
  - Make statements that go beyond what the results can support
  - Suddenly introduce new terms or ideas

# Conclusions

- **Present global and specific conclusions**
- **Indicate uses and extensions if appropriate**
- **Suggest future experiments and indicate whether they are underway**
- **Do not summarize the paper**
  - The abstract is for that purpose
- **Avoid judgments about impact**



# Avoid non-quantitative words, if possible

**e.g. low/high, extremely, enormous,  
rapidly, dramatic, massive, considerably,  
exceedingly, major/minor, ...**

**Quantitative descriptions are always  
preferred**



# References: get them right!

- Please **adhere to the Guide for Authors** of the journal
- It is your responsibility, not of the Editor's, to format references correctly!
- Check
  - Referencing style of the journal
  - The spelling of author names, the year of publication
  - Punctuation use
  - Use of "et al.": "et al." translates to "and others",
- **Avoid citing the following if possible:**
  - Personal communications, unpublished observations, manuscripts not yet accepted for publication
    - Editors may ask for such documents for evaluation of the manuscripts
  - Articles published only in the local language, which are difficult for international readers to find

# Supplementary Material

- **Data of secondary importance for the main scientific thrust of the article**
  - e.g. individual curves, when a representative curve or a mean curve is given in the article itself
- **Or data that do not fit into the main body of the article**
  - e.g. audio, video, ....
- **Not part of the printed article**
  - Will be available online with the published paper
- **Must relate to, and support the article**

# Suggested length of a full article

- Not the same for all journals, even in the same field
- “...25- 30 pages is the ideal length for a submitted manuscript, including **ESSENTIAL** data only.”
  - Title page
  - Abstract 1 paragraph
  - Introduction 1.5-2 manuscript pages (double-spaced, 12pt)
  - Methods 2-4 manuscript pages
  - Results & Discussion 10-12 manuscript pages
  - Conclusions 1-2 manuscript pages
  - Figures 6-8
  - Tables 1-3
  - References 20-50
- Letters or short communications usually have a stricter size limitation, e.g. 3,000 words and no more than 5 figures/tables.

# Abbreviations

- Abbreviations must be defined **on the first use** in **both** abstract and main text.
- Some journals even forbid the use of abbreviations in the abstract.
- Abbreviations that are **firmly established** in the field do not need to be defined, e.g. DNA.
- Never define an abbreviation of a term that is only used once.
- **Avoid acronyms, if possible**
  - Abbreviations that consist of the initial letters of a series of words
  - Can be typical “lab jargon”, incomprehensible to outsiders

# Cover Letter

## Your cover letter

- **Submitted**
- **Mentioned**  
to the journal
- **Note special**  
**conflicts**

**Suggested reviewers**

Professor H. D. Schmidt  
School of Science and Engineering  
Northeast State University  
College Park, MI 10000  
USA

January 1, 2008

Dear Professor Schmidt,

Enclosed with this letter you will find an electronic submission of a manuscript entitled "Mechano-sorptive creep under compressive loading - a micromechanical model" by John Smith and myself. This is an original paper which has neither previously nor simultaneously in whole or in part been submitted anywhere else. Both authors have read and approved the final version submitted.

**Final approval from all authors**

Mechano-sorptive is sometimes denoted as accelerated creep. It has been experimentally observed that the creep of paper accelerates if it is subjected to a cyclic moisture content. This is of large practical importance for the paper industry. The present manuscript describes a micromechanical model on the fibre network level that is able to capture the experimentally observed behaviour. In particular, the difference between mechano-sorptive creep in tension and compression is analysed. John Smith is a PhD-student who within a year will present his doctoral thesis. The present paper will be a part of that thesis.

**Explanation of importance of research**

Three potential independent reviewers who have excellent expertise in the field of this paper are:

Dr. Fernandez, Tennessee Tech, [email1@university.com](mailto:email1@university.com)  
Dr. Chen, University of Maine, [email2@university.com](mailto:email2@university.com)  
Dr. Singh, Colorado School of Mines, [email3@university.com](mailto:email3@university.com)

I would very much appreciate if you would consider the manuscript for publication in the *International Journal of Science*.

Sincerely yours,

A. Professor



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# Suggest potential reviewers

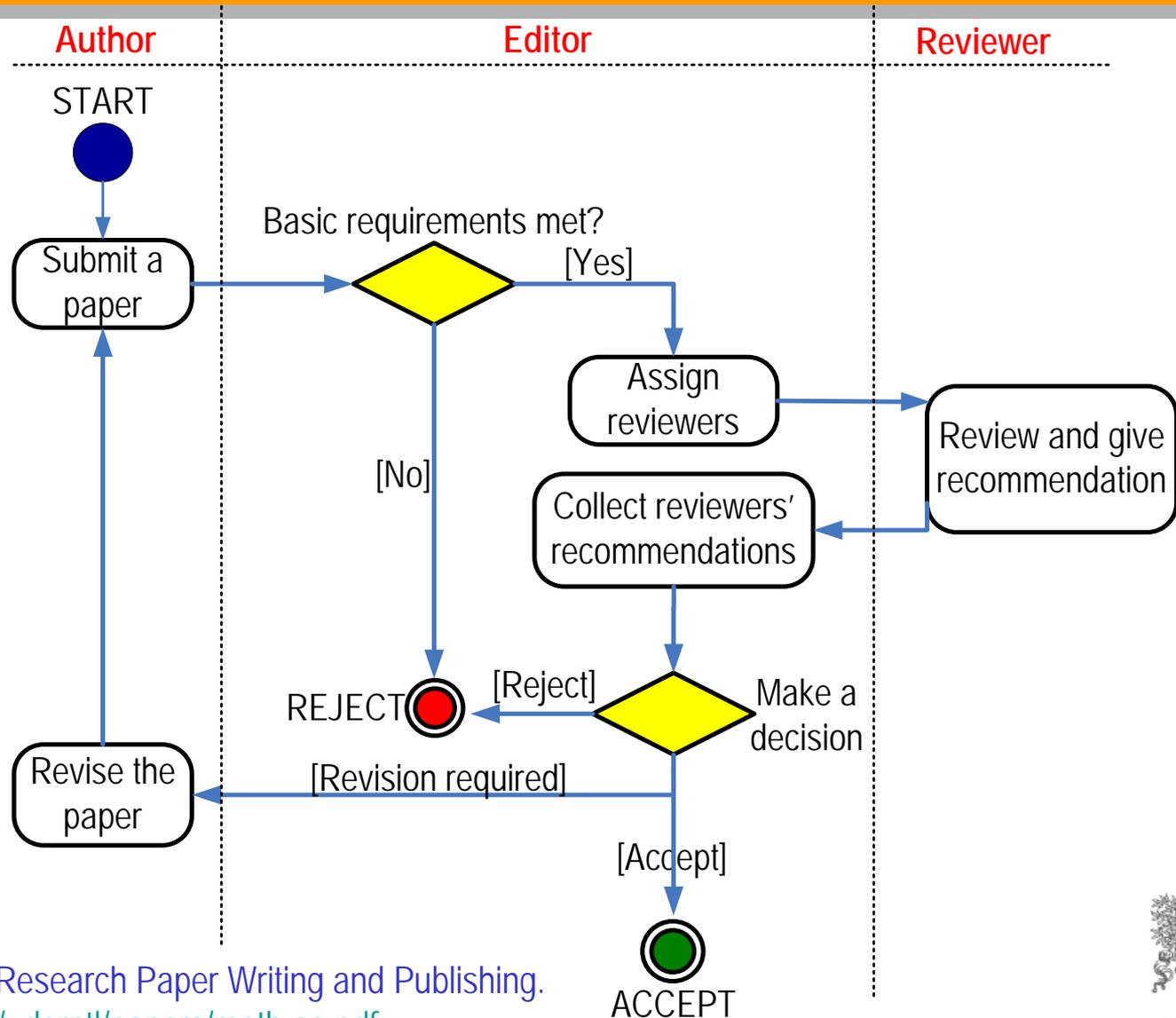
- Your suggestions will help the Editor to move your manuscript to the review stage more efficiently.
- You can easily find potential reviewers and their contact details from articles in your specific subject area (e.g., your references).
- The reviewers should represent at least two regions of the world. And they **should not** be your supervisor or close friends.
- Be prepared to suggest 3-6 potential reviewers, based on the Guide to Authors.



# Make every attempt to make your first submission a success

- **No one gets it right the first time!**
  - Write, and re-write ....
- **Suggestions**
  - After writing a first version, take several days of rest. Come back with a critical, fresh view
  - Ask colleagues and supervisor to review your manuscript. Ask them to be highly critical, and ***be open to their suggestions.***

# The Peer Review Process – not a black hole!



# Initial Editorial Review

Many journals use a system of initial editorial review. Editors may reject a manuscript without sending it for review

## Why?

- The peer-review system is **grossly overloaded** and editors wish to use reviewers only for those papers with a good probability of acceptance.
- It is a **disservice** to ask reviewers to spend time on work that has clear and evident deficiencies.



# First Decision: “Accepted” or “Rejected”

## Accepted

- Very rare, but it happens



- **Congratulations!**

- Cake for the department
- Now wait for page proofs and then for your article to be online and in print

## Rejected

- Probability 40-90% ...
- Do not despair
  - It happens to everybody
- Try to understand WHY
  - Consider reviewers' advice
  - Be self-critical
- If you submit to another journal, begin as if it were a new manuscript
  - Take advantage of the reviewers' comments
  - They may review your manuscript for the other journal too!
  - Read the Guide for Authors of the new journal, again and again.



# First Decision: “Major” or “Minor” Revision

- **Minor revision**

- Basically, the manuscript is worth to be published
- Some elements in the manuscript must be clarified, restructured, shortened (often) or expanded (rarely)
- Textual adaptations
- “Minor revision” does NOT guarantee acceptance after revision!

- **Major revision**

- The manuscript may be worth to be published
- Significant deficiencies must be corrected before acceptance
- Involves (significant) textual modifications and/or additional experiments



# Revision: a great learning opportunity!

- Cherish the chance of discussing your work directly with other scientists in your community. Please prepare a detailed letter of response.
- Cut and paste **each** comment by the reviewer. Answer it directly below. Do not miss any point. State **specifically** what changes (if any) you have made to the manuscript. Identify the page and line number. ***A typical problem – Discussion is provided but it is not clear what changes have been made.***
- Provide a **scientific response** to the comment you accept; or a **convincing, solid and polite rebuttal** to the point you think the reviewer is wrong.
- Write in a way that your responses can be given to the reviewer.



# Manuscript Revision

- **Prepare a detailed Response Letter**
  - Copy-paste each reviewer comment, and type your response below it
  - State specifically which changes you have made to the manuscript
    - Include page/line numbers
    - No general statements like “Comment accepted, and Discussion changed accordingly.”
  - Provide a *scientific* response to comments to accept, .....
  - ..... or a convincing, solid and polite rebuttal when you feel the reviewer was wrong.
  - Write in such a manner, that your response can be forwarded to the reviewer without prior editing
- **Do not do yourself a dis favour, but cherish your work**
  - You spent **weeks** and **months** in the lab or the library to do the research
  - It took you **weeks** to write the manuscript



*Why then run the risk of avoidable rejection  
by not taking manuscript revision seriously?*



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# Rejection: not the end of the world

- Everyone has papers rejected – do not take it personally.
- Try to understand why the paper was rejected.
- Note that you have received the benefit of the editors and reviewers' time; take their advice seriously!
- Re-evaluate your work and decide whether it is appropriate to submit the paper elsewhere.
- **If so, begin as if you are going to write a new article. Read the Guide for Authors of the new journal, again and again.**

# Poster Presentations

- Title
- Abstract
- Keywords

**Clear, readable, well thought out.  
Stands out from the other posters as  
conference delegates walk past.**

- Main text (IMRAD)
  - Introduction
  - Methods
  - Results
  - And
  - Discussions

**Poster space is very limited. Do NOT be  
tempted to reduce your typesize to get  
more text on the poster!**

**Make your poster as concise as possible  
- more difficult than you imagine!**

- Conclusion
- Acknowledgement
- References (minimal)

# Writing a Poster Abstract – the similarities

All of the above points for writing a paper still apply:

Tell readers what you did and the important findings

- One paragraph (often between 200-300 words) – check!
- You must not just state your results but also why your work is important, and your interpretation of what the results imply.
- A clear abstract will strongly influence if your work is considered further, and if you will be invited to speak or present a poster.
- Presenting a poster is a great springboard in your research career.





# Writing a Poster Abstract – the differences

**Your abstract will be evaluated by the conference committee and, they will either accept it as a Poster presentation, a short Oral Presentation, or Reject it!**

**The drawback: Often you have not written the poster/article when you submit your abstract to the meeting!**

- **Use the structure above to gather your results, methods, etc.**
- **Write a brief outline of what your poster would contain**
- **Use this to make a clear, strong, abstract to submit.**
- **Keep your notes – hopefully you will need them to make a poster shortly!**

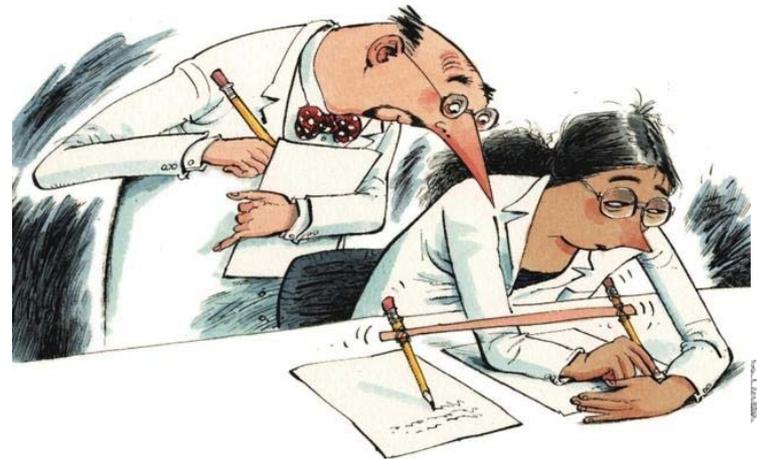
## What NOT to do (Publishing Ethics)

**When it comes to publishing ethics abuse, the much used phrase “Publish or Perish” has in reality become “Publish AND Perish”!**



# Publish *AND* Perish! – if you break ethical rules

- International scientific ethics have evolved over centuries and are commonly held throughout the world.
- Scientific ethics are not considered to have national variants or characteristics – there is a *single ethical standard* for science.
- Ethics problems with scientific articles are on the rise *globally*.



M. Errami & H. Garner  
A tale of two citations  
Nature 451 (2008): 397-399

# Plagiarism

- A short-cut to long-term consequences!
- Plagiarism is considered a *serious offense* by your institute, by journal editors, and by the scientific community.
- Plagiarism may result in *academic charges*, but will certainly cause rejection of your paper.
- Plagiarism will *hurt your reputation* in the scientific community.

No Copying



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# Duplicate Publication

- **Two or more papers, without full cross reference, share the same hypotheses, data, discussion points, or conclusions**
- **An author should not submit for consideration in another journal a previously published paper.**
  - Published studies do not need to be repeated unless further confirmation is required.
  - Previous publication of an abstract during the proceedings of conferences does not preclude subsequent submission for publication, but full disclosure should be made at the time of submission.
  - Re-publication of a paper in another language is acceptable, provided that there is full and prominent disclosure of its original source at the time of submission.
  - At the time of submission, authors should disclose details of related papers, even if in a different language, and similar papers in press.
  - This includes translations

# Plagiarism Detection Tools

- Elsevier is participating in 2 plagiarism detection schemes:
  - TurnItIn (aimed at universities)
  - iThenticate (aimed at publishers and corporations)



**Manuscripts are checked against a database of 20 million peer reviewed articles which have been donated by 50+ publishers, including Elsevier.**

**All post-1994 Elsevier journal content is now included, and the pre-1995 is being steadily added week-by-week**

- **Editors and reviewers**
- **Your colleagues**
- **"Other" whistleblowers**
  - "The walls have ears", it seems ...



# Publication ethics – How it can end .....

“I deeply regret the inconvenience and agony caused to you by my mistake and request and beg for your pardon for the same. As such I am facing lot many difficulties in my personal life and request you not to initiate any further action against me. I would like to request you that all the correspondence regarding my publications may please be sent to me directly so that I can reply them immediately. To avoid any further controversies, I have decided not to publish any of my work in future.”

A “pharma” author  
December 2, 2008



The screenshot shows a BBC News Europe article from February 24, 2011. The article discusses the German defence minister, Karl-Theodor zu Guttenberg, who was stripped of his university doctorate after being found to have copied large parts of his work from others. The article includes a photograph of Mr. Guttenberg and a list of related stories.

**BBC**  
**NEWS EUROPE**

Home UK Africa Asia-Pac Europe Latin America Mid-East South Asia US & Canada Business Health

24 February 2011 Last updated at 11:38 GMT

## German minister loses doctorate after plagiarism row

**Germany's defence minister has been stripped of his university doctorate after he was found to have copied large parts of his work from others.**



Karl-Theodor zu Guttenberg, an aristocrat who lives in a Bavarian castle, admitted breaching standards but denied deliberately cheating.

Analysis revealed that more than half of his thesis had long sections lifted word-for-word from the work of others.

Mr Guttenberg failed to name sources for parts of his PhD thesis

So far the German Chancellor, Angela Merkel, has stood by the minister.

The University of Bayreuth decided that Mr Guttenberg had "violated scientific duties to a considerable extent".

It deplored the fact that he had lifted sections of text without attribution.

Last week Mr Guttenberg said he would temporarily give up his PhD title while the university investigated the charges of plagiarism. He admitted that he had made "serious mistakes".

His thesis - Constitution and Constitutional Treaty: Constitutional Developments in the US and EU - was completed in 2006 and published in 2009.

Chancellor Merkel insisted on Monday that she was standing by her defence minister, who was seen as something of a rising star in her conservative coalition.

### Related Stories

- Germany's Baron without a title
- Plagiarism row minister drops PhD
- German minister denies plagiarism

doi:10.1016/j.sigpro.2005.07.019  Cite or Link Using DOI  
 Copyright © 2005 Elsevier B.V. All rights reserved.

**RETRACTED: Matching pursuit-based approach**



Available online 24 August 2005.

This article has been retracted at the request of the Editor-in-Chief and Publisher. For more information on this article please see <http://www.elsevier.com/locate/withdrawalpolicy>.

Reason: This article is virtually identical to the previously published article "A matching pursuit-based algorithm for SNR improvement in ultrasonic NDT", *Independent Nondestructive Testing International*, volume 38 (2005) 453 – 458 authored by [redacted].

An article in which the authors committed plagiarism: it will not be removed from ScienceDirect. Everybody who downloads it will see the reason for the retraction...

the echoes issuing from the flaws to be detected. Therefore, it cannot be cancelled by classical time averaging or matched band-pass filtering techniques.

Many signal processing techniques have been utilized for signal-to-noise ratio (SNR) improvement in ultrasonic NDT of highly scattering materials. The most popular one is the split spectrum processing (SSP) [1–3], because it makes possible real-time ultrasonic test for industrial applications, providing quite good results. Alternatively to SSP, wavelet transform (WT) based denoising/detection methods have been proposed during recent years [4–8], yielding usually to higher improvements of SNR at the expense of an increase in complexity. Adaptive time-frequency analysis by basis pursuit (BP) [9,10] is a recent technique for decomposing a signal into an optimal superposition of elements in an over-complete waveform dictionary. This technique and some other related techniques have been successfully applied to denoising ultrasonic signals contaminated with grain noise in highly scattering materials [11,12], as an alternative to the WT technique, the computational cost of the BP algorithm being the main drawback.

In this paper, we propose a novel matching pursuit-based signal processing method for improving SNR in ultrasonic NDT of highly scattering materials, such as steel and composites. Matching pursuit is used instead of BP to reduce the complexity. Despite its iterative nature, the method is fast enough to be real-time implemented. The performance of the proposed method has been evaluated using both computer simulation and experimental results, when the input SNR (SNR<sub>in</sub>) is lower than 0dB (the level of echoes scattered by microstructures is above the level of the echoes).

**2. Matching pursuit**

Matching pursuit was introduced by Mallat and Zhang [13]. Let us suppose an approximation of the ultrasonic backscattered signals  $x[n]$  as a linear expansion in terms of functions  $g_i[n]$  chosen from an over-complete dictionary. Let  $H$  be a Hilbert

space. We define the over-complete dictionary as a family  $D = \{g_i; i=0, 1, \dots, L\}$  of vectors in  $H$ , such as  $\|g_i\| = 1$ .

The problem of choosing functions  $g_i[n]$  that best approximate the analysed signal  $x[n]$  is computationally very complex. Matching pursuit is an iterative algorithm that offers sub-optimal solutions for decomposing signals in terms of expansion functions chosen from a dictionary, where  $\ell^1$  norm is used as the approximation metric because of its mathematical convenience. When a well-designed dictionary is used in matching pursuit, the non-linear nature of the algorithm leads to compact adaptive signal models.

In each step of the iterative procedure, vector  $g_i[n]$  which gives the largest inner product with the analysed signal is chosen. The contribution of this vector is then subtracted from the signal and the process is repeated on the residual. At the  $m$ th iteration the residue is

$$r^m[n] = \begin{cases} x[n] & m=0, \\ x[n] - \sum_{k=0}^{m-1} \alpha_{k(m)} g_k[n], & m \neq 0, \end{cases} \quad (1)$$

where  $\alpha_{k(m)}$  is the weight associated to optimum atom  $g_k[n]$  at the  $m$ th iteration.

The weight  $\alpha_i^m$  associated to each atom  $g_i[n] \in D$  at the  $m$ th iteration is introduced to compute all the inner products with the residual  $r^m[n]$ :

$$\alpha_i^m = \frac{\langle r^m[n], g_i[n] \rangle}{\langle g_i[n], g_i[n] \rangle} = \frac{\langle r^m[n], g_i[n] \rangle}{\|g_i[n]\|^2} = \langle r^m[n], g_i[n] \rangle. \quad (2)$$

The optimum atom  $g_{k(m)}[n]$  (and its weight  $\alpha_{k(m)}$ ) at the  $m$ th iteration are obtained as follows:

$$g_{k(m)}[n] = \underset{g_i[n] \in D}{\operatorname{argmin}} \|\langle r^m[n], g_i[n] \rangle\|^2 = \underset{g_i[n] \in D}{\operatorname{argmax}} |\alpha_i^m|^2 = \underset{g_i[n] \in D}{\operatorname{argmax}} |\alpha_i^m|. \quad (3)$$

The computation of correlations  $\langle r^m[n], g_i[n] \rangle$  for all vectors  $g_i[n]$  at each iteration implies a high computational effort, which can be substantially reduced using an updating procedure derived from Eq. (1). The correlation updating procedure [13] is performed as follows:

$$\langle r^{m+1}[n], g_i[n] \rangle = \langle r^m[n], g_i[n] \rangle - \alpha_{k(m)} \langle g_{k(m)}[n], g_i[n] \rangle. \quad (4)$$

# Figure Manipulation

As long as they don't obscure or eliminate info present in the original image



Must be disclosed in the figure legend

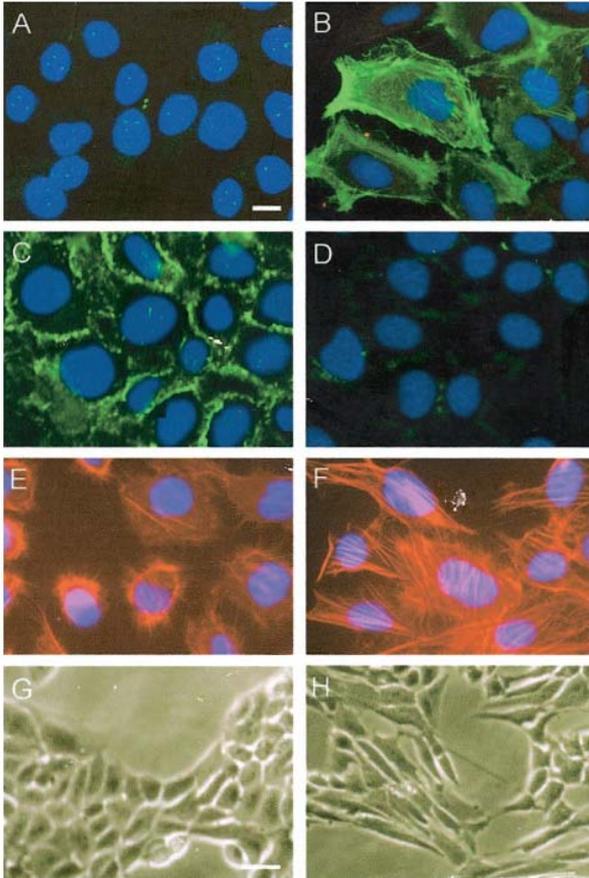


# Figure Manipulation

Example - Different authors and reported experiments

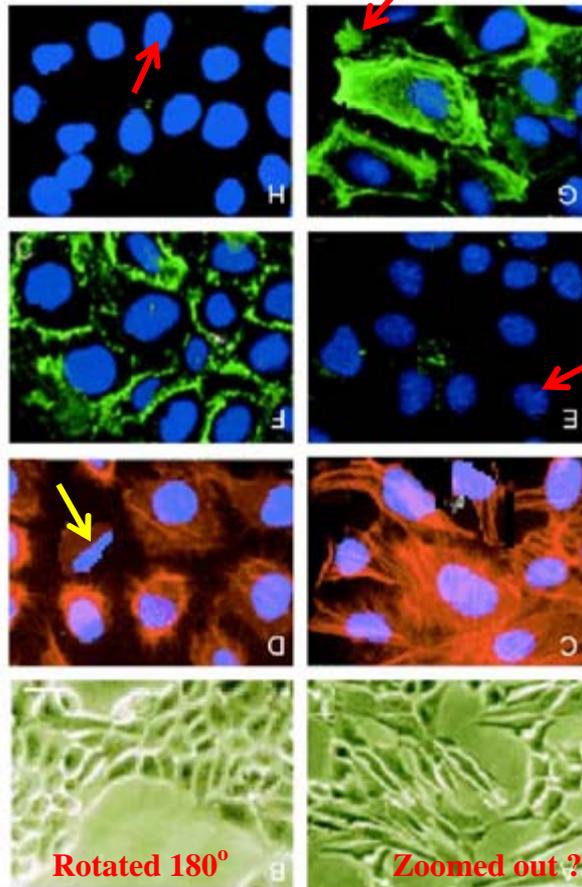


Am J Pathol, 2001

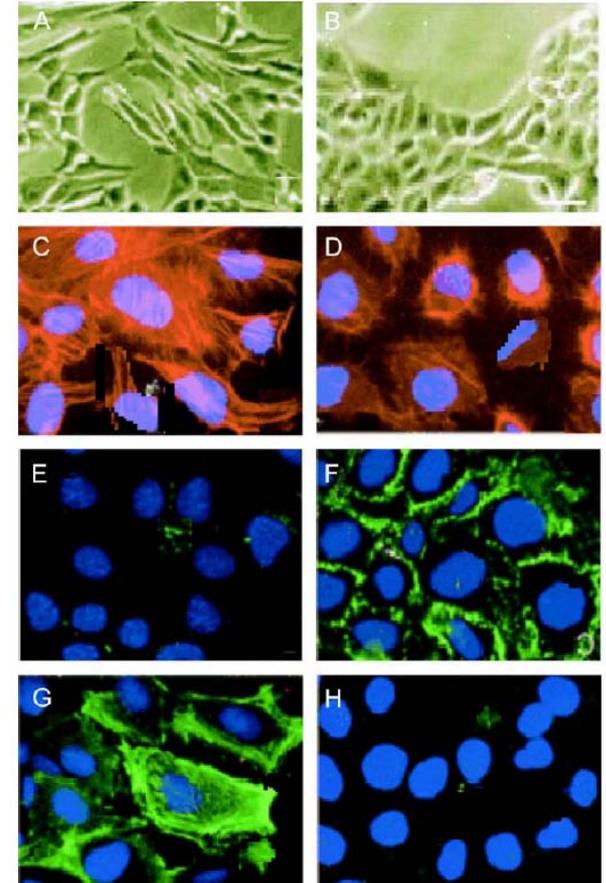


Life Sci, 2004

Rotated 180°



Life Sci, 2004



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# Data fabrication and falsification

***Fabrication:*** Making up data or results, and recording or reporting them

“... the fabrication of research data ... *hits at the heart of our responsibility to society*, the reputation of our institution, the trust between the public and the biomedical research community, and our personal credibility and that of our mentors, colleagues...”

“It can *waste the time of others*, trying to replicate false data or designing experiments based on false premises, and can lead to therapeutic errors. It can never be tolerated.”

Professor Richard Hawkes  
Department of Cell Biology and Anatomy  
University of Calgary

“The most dangerous of all falsehoods is a slightly distorted truth.”

G.C.Lichtenberg (1742-1799)



# What leads to acceptance ?

- **Attention to details**
- **Check and double check your work**
- **Consider the reviewers' comments**
- **English must be as good as possible**
- **Presentation is important**
- **Take your time with revision**
- **Acknowledge those who have helped you**
- **New, original and previously unpublished**
- **Critically evaluate your own manuscript**
- **Ethical rules must be obeyed**

– Nigel John Cook  
Editor-in-Chief, *Ore Geology Reviews*



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- **Nigel Cook. Editor-in-chief, Ore Geology Reviews.**
- **Frans P. Nijkamp, Journal of Ethnopharmacology**
- **Wilfred CG Peh. Editor, Singapore Medical Journal**
- **Malcolm W. Kennedy. Professor, Institue of Biomedical and Life Sciences, University of Glasgow, UK**

# Questions?



Or for questions later, please contact [a.newman@elsevier.com](mailto:a.newman@elsevier.com)

# Further reading for you

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