

WRITING AND PUBLISHING A SCIENTIFIC PAPER IN HIGH PROFILE MEDICAL JOURNALS



Prof. Sultan Ayoub Meo
MBBS, Ph.D (Pak), M Med Ed (Dundee), FRCP (London),
FRCP (Dublin), FRCP (Glasgow), FRCP (Edinburgh)
Associate Editor, BMC Medical Education, London, UK
Professor and Consultant, Department of Physiology,
College of Medicine, King Saud University, Riyadh, KSA



WHY WE PUBLISH

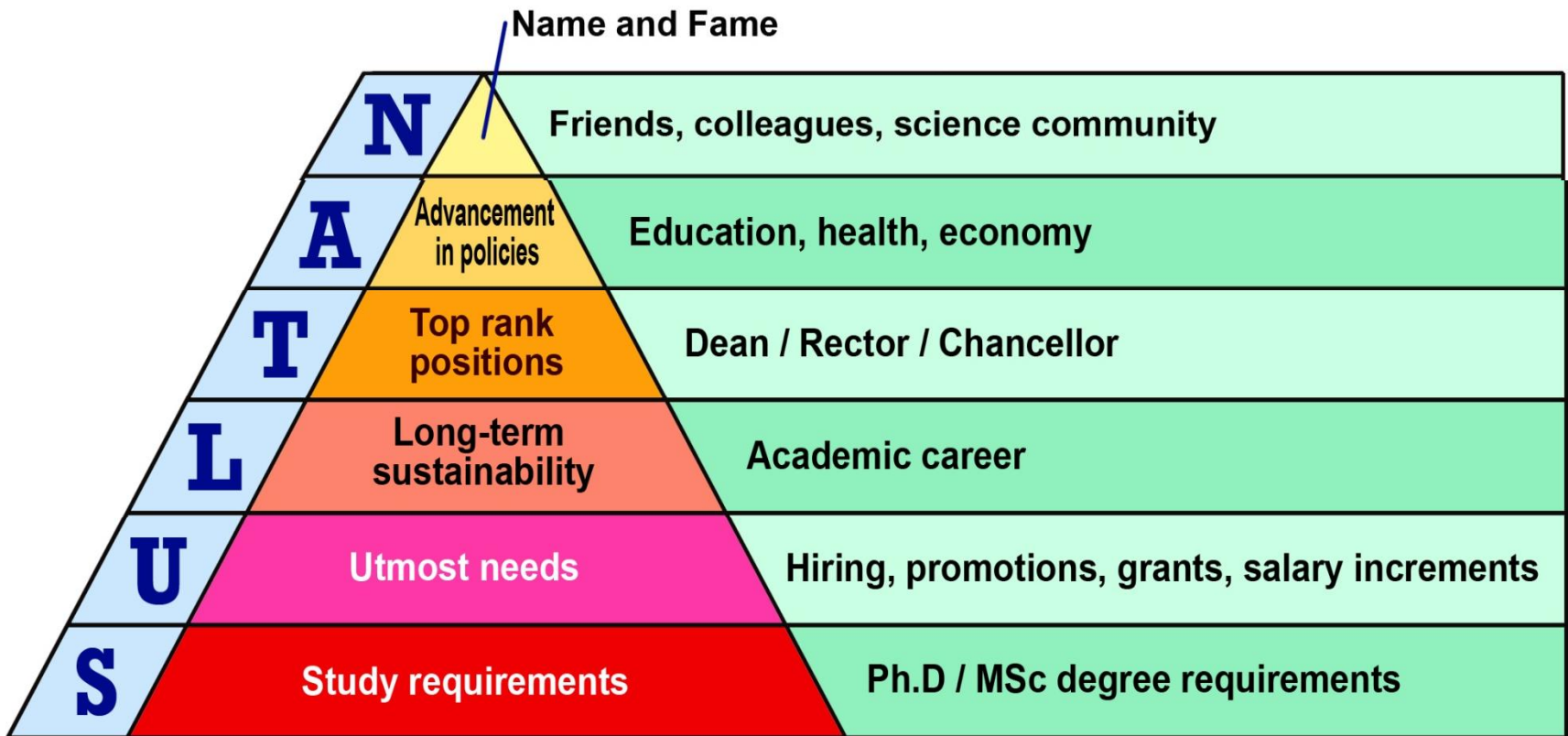
Publications:

- Communicate scientific ideas
- Disseminate knowledge
- Encourage discussion
- Enhance the academic career
- Develop the scholarly base
- Personal satisfaction

**Your research is not complete until
it has been published**

Jonathan, Br Med J, 2004
Elpidoforos et al., FASEB Journal, 2005
Meo & Al-Sadi, Pak J Med Sci, 2007
Phadtare et al., BMC Meed Ed, 2009

WHY WE PUBLISH





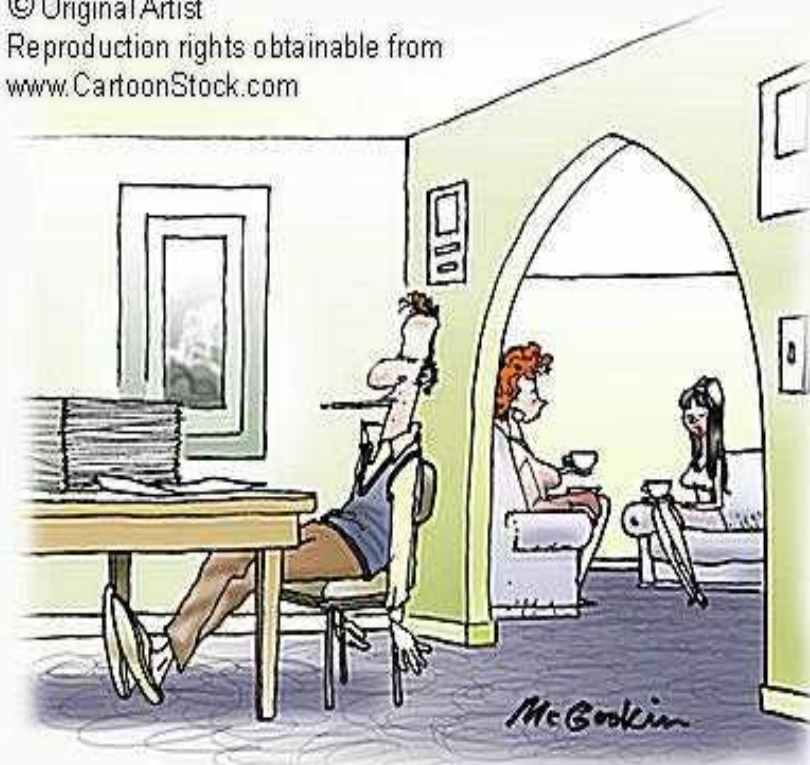
WHY WE PUBLISH

- No publication.....No research project
- No publication.....No funding for research
- No publication.....No promotion
- No publication.....No Academic / Health policies
- No publication.....Scientific, Academic &
Institutional death

TYPES OF SCIENTIFIC WRITING

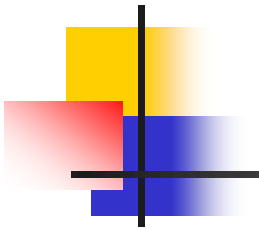
- Editorial
- Original Article
- Review / Commentary
- Case Reports
- Letter to Editor
- Brief Communication
- Personal Views /Book Review

© Original Artist
Reproduction rights obtainable from
www.CartoonStock.com



I blame myself. I said "write what you know."

ROAD MAP OF PUBLISHING A SCIENTIFIC PAPER

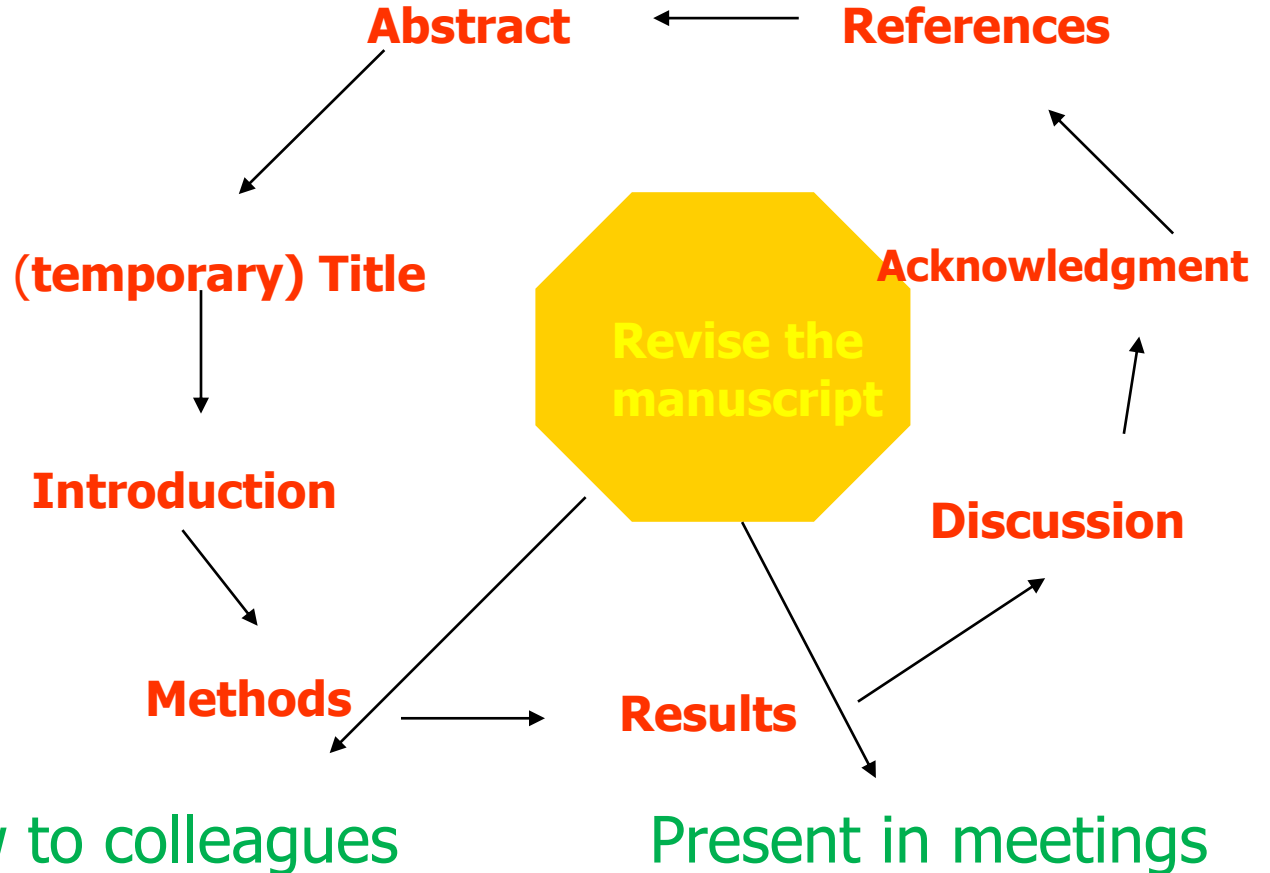


Select Journal

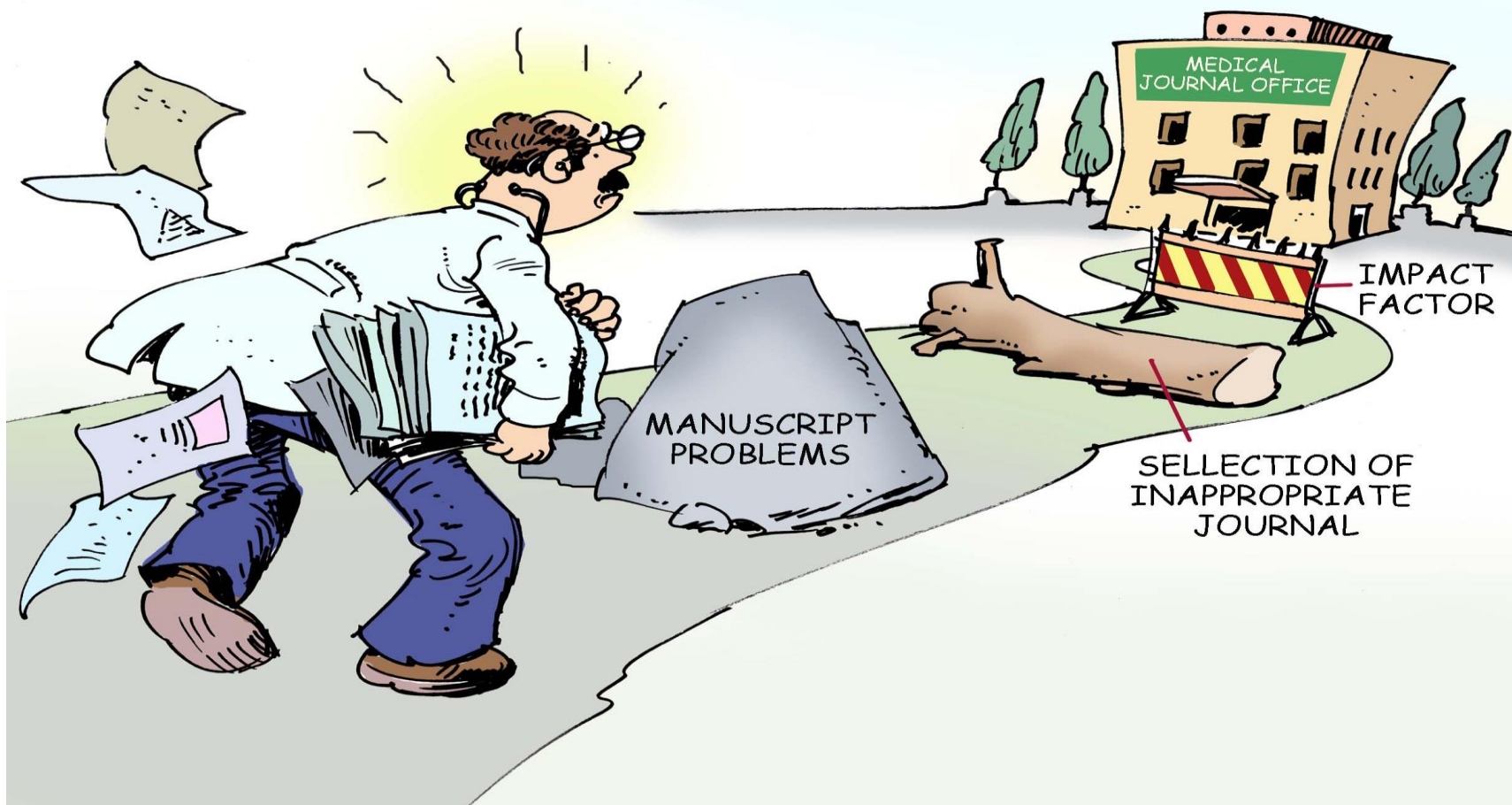
Read instructions to authors

Time-schedule

Make (sub)headings



RESEARCHERS MUST CONSIDER

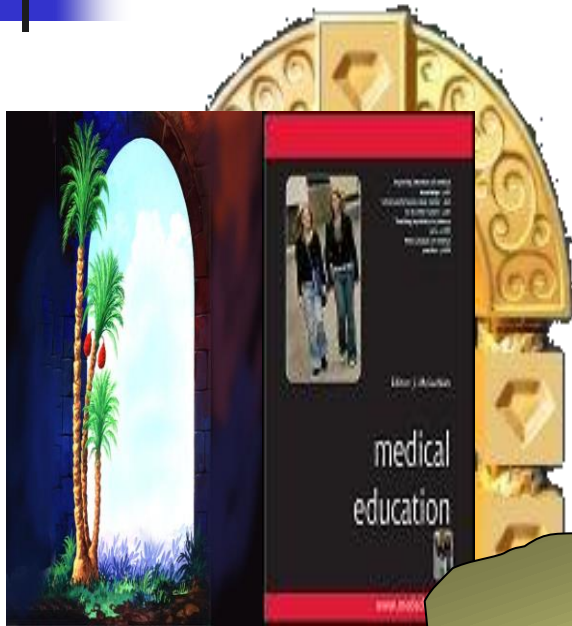




CHOOSING THE RIGHT JOURNAL



CHOOSING THE RIGHT JOURNAL



**Understand the
Readers, Prestige
of Journal and Novelty
of the work**

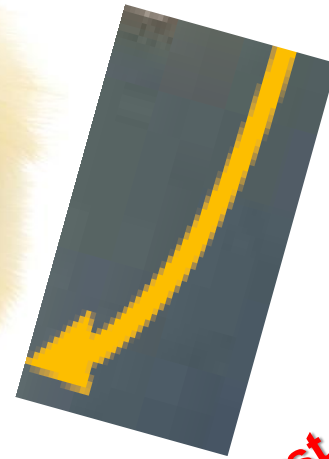
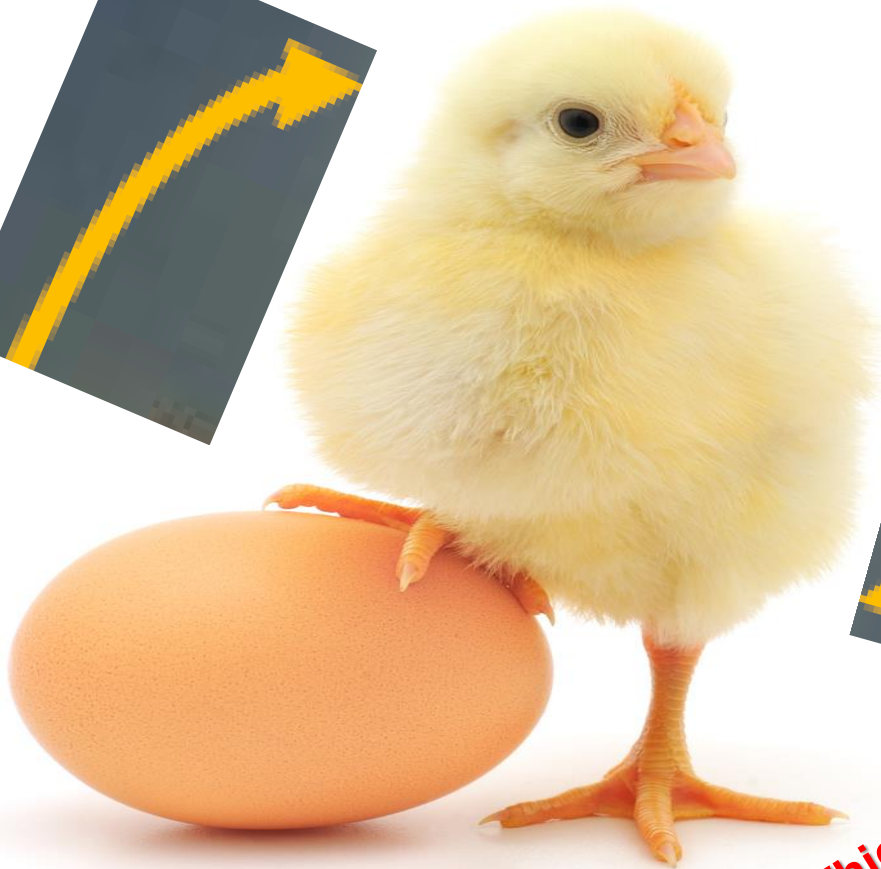
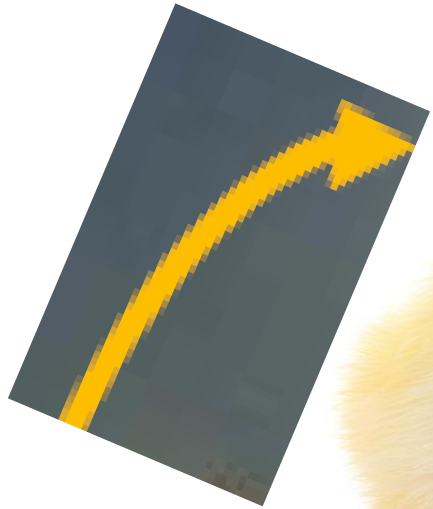


CHOOSING THE RIGHT JOURNAL

Submitting a manuscript to an **inappropriate journal** is a **common mistake**, editors reject the manuscript without even sending it for peer review.

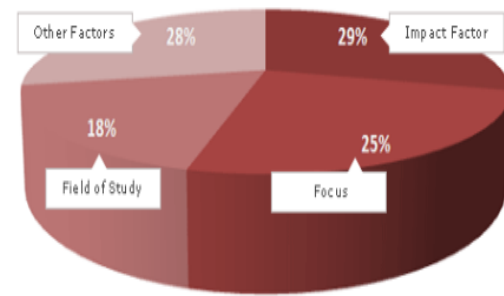
Choosing an appropriate journal that matches your study is thus very important because it makes it **more likely that your manuscript will be accepted.**

CHOOSING THE RIGHT JOURNAL



**Which Comes first Journal or Paper?
Anatomy of the Manuscript
Physiology of the Manuscript**

CHOOSING THE RIGHT JOURNAL



Where authors often go wrong: Ask yourself these questions:

Did you Read the Instruction for authors?

Did you know the aims and scope of the journal?

Did you know the subject category of the journal ?

What kinds of papers is the Editor looking for?

Did you know the indexing of the journal ?

Who reads the journal?

How prestigious is the journal?

How long to publish / frequency ?

What are the costs?

Where do you find all this information?

Journal web site: to find out Journal aims and scopes The Instructions to Authors



INSTRUCTION TO AUTHORS



FIND

Aims and Objectives

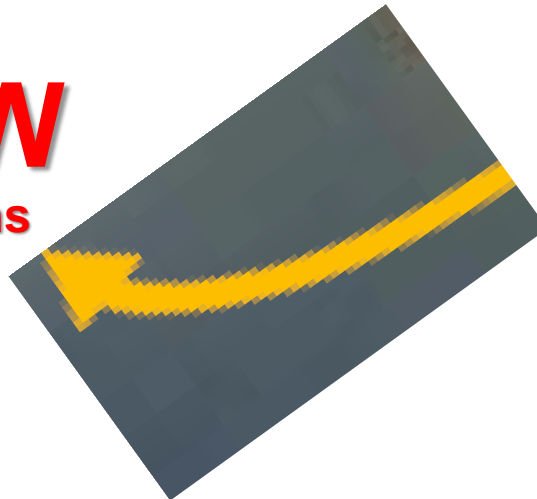


READ

Instruction for authors

FOLLOW

The author instructions



INDEXING OF THE JOURNAL



```
graph TD; A[Journal Indexing] --> B[ISI Indexed Journals]; A --> C[Non ISI Indexed Journals]
```

Journal Indexing

ISI Indexed Journals

Non ISI Indexed Journals

INDEXING OF THE JOURNAL

**ISI- Institute of Scientific
Information Indexed
Journals**

**Pub Med Indexed
Journals**



Both ISI- and Pub Med Indexed Journals

KNOWING THE READERS



TITLE OF PAPER

Effects of **smoking** on
academic grades

TITLE OF JOURNAL



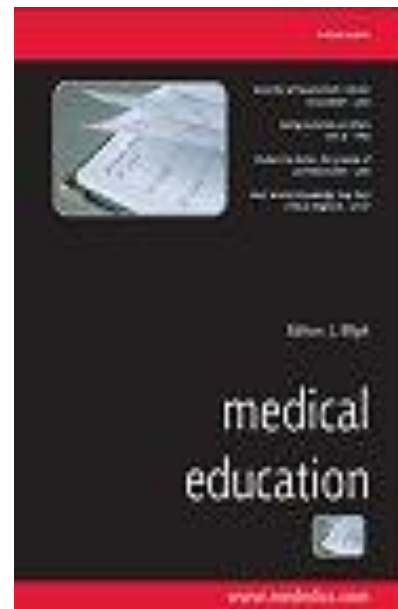
KNOWING THE READERS



TITLE OF PAPER

Effects of **smoking** on
academic grades

TITLE OF JOURNAL





KNOWING THE READERS



TITLE OF PAPER

Effects of X-Ray radiation
on the Phagocytic function
of PMNs

TITLE OF JOURNAL





KNOWING THE READERS



TITLE OF PAPER

Occupational hazards of X-Ray radiation on the Phagocytic function of PMNs

TITLE OF JOURNAL



KNOWING THE READERS



TITLE OF PAPER

Congenital absence of gall bladder in young Saudi medical student

TITLE OF JOURNAL



KNOWING THE READERS



TITLE OF PAPER

Congenital absence of gall bladder in young Saudi medical student

TITLE OF JOURNAL



PRESTIGE OF THE JOURNAL [IMPACT FACTOR]



Medical Education
Literature



IMPACT FACTOR



Impact factor **may provide** quantitative

tools for:

Evaluating

Ranking

Categorizing

Comparing journals



Edwin & Vanor, 2002

IMPACT FACTOR

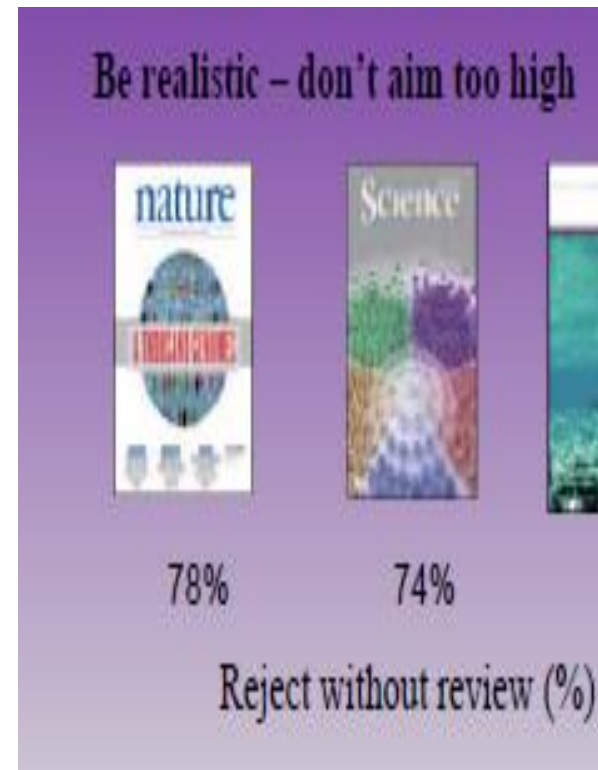
Every author wants to publish in the best possible High IF journals

Don't aim too high

Don't aim too low

The higher the IF, the higher the rejection rate

Nature acceptance rate: 6.8%



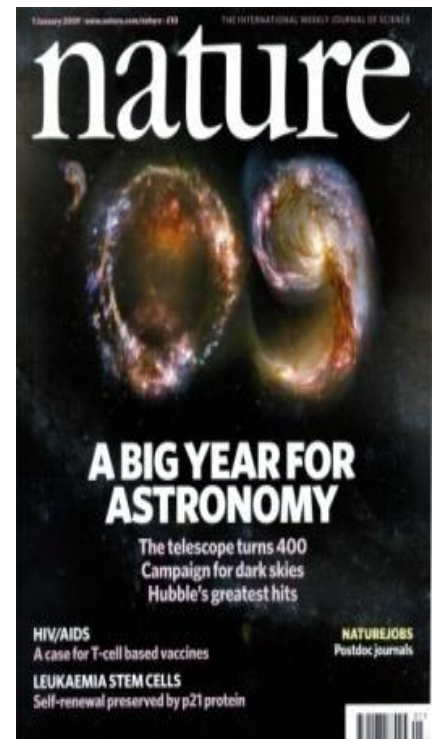
IMPACT FACTOR



Best journals are those in which **it**
is most difficult to have an article
accepted

AND

These are the journals that have a
high impact factor



IMPACT FACTOR

Impact Factor is important but.....

Impact
factor

Everything
Else



IMPACT FACTOR

Impact Factor is important but it isn't everything

Impact
factor

Cost
Topic
Access
Audience
Reputation
Rejection rates

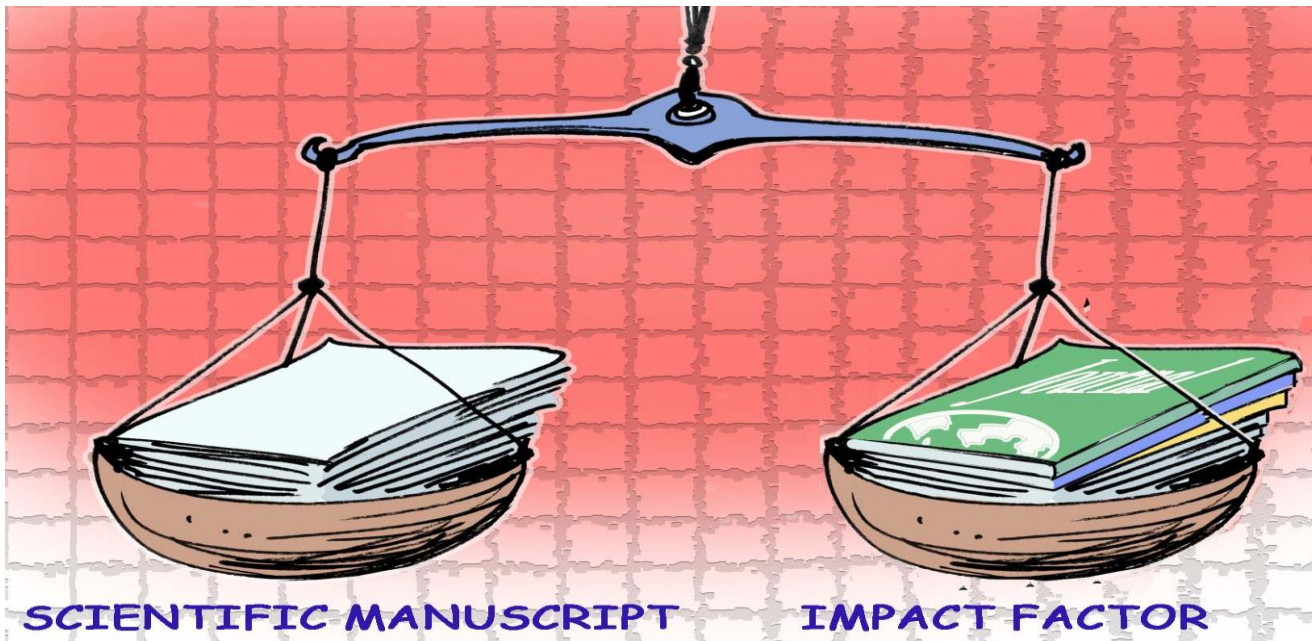


IMPACT FACTOR

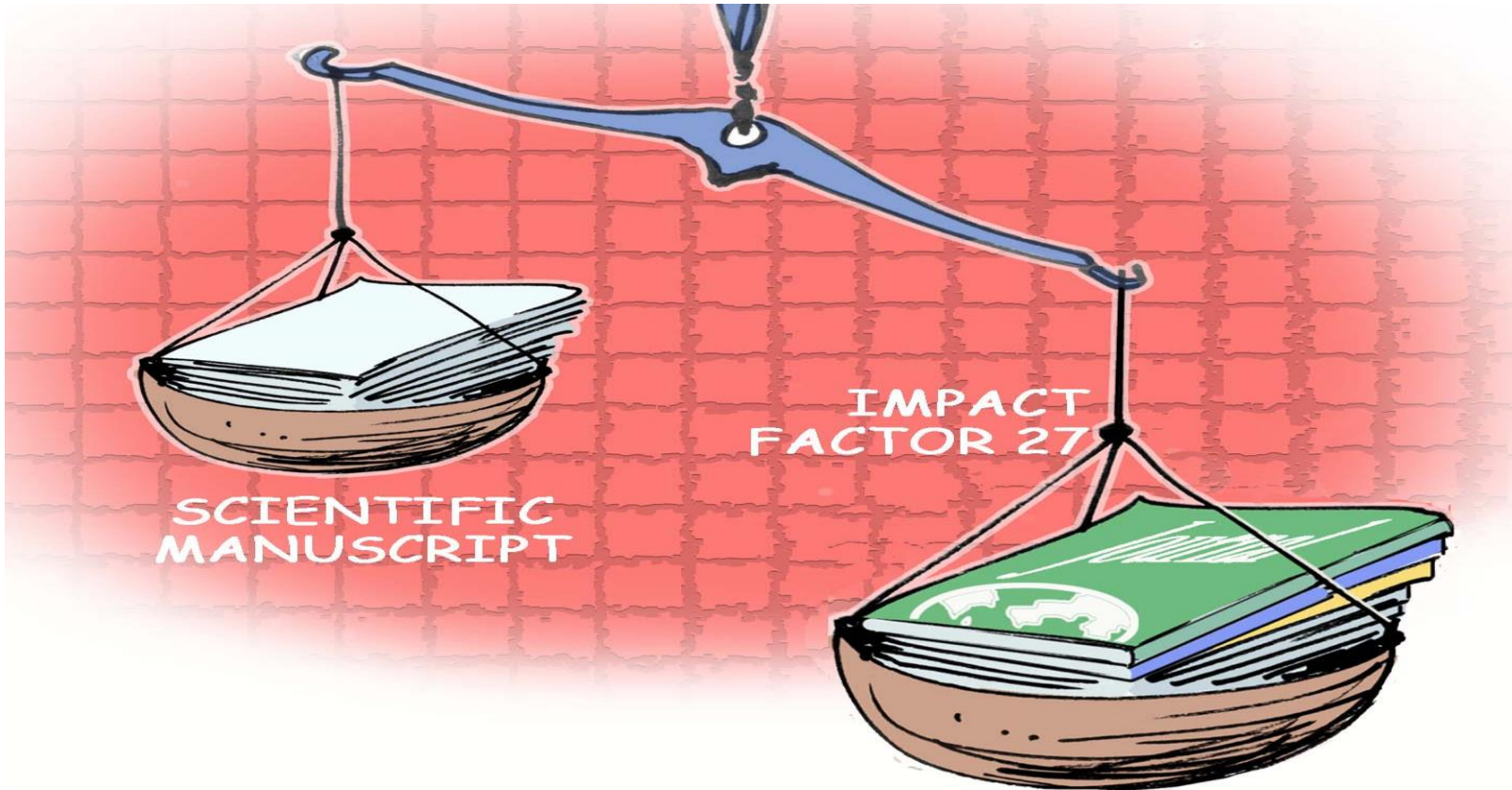


Must make a balance between:

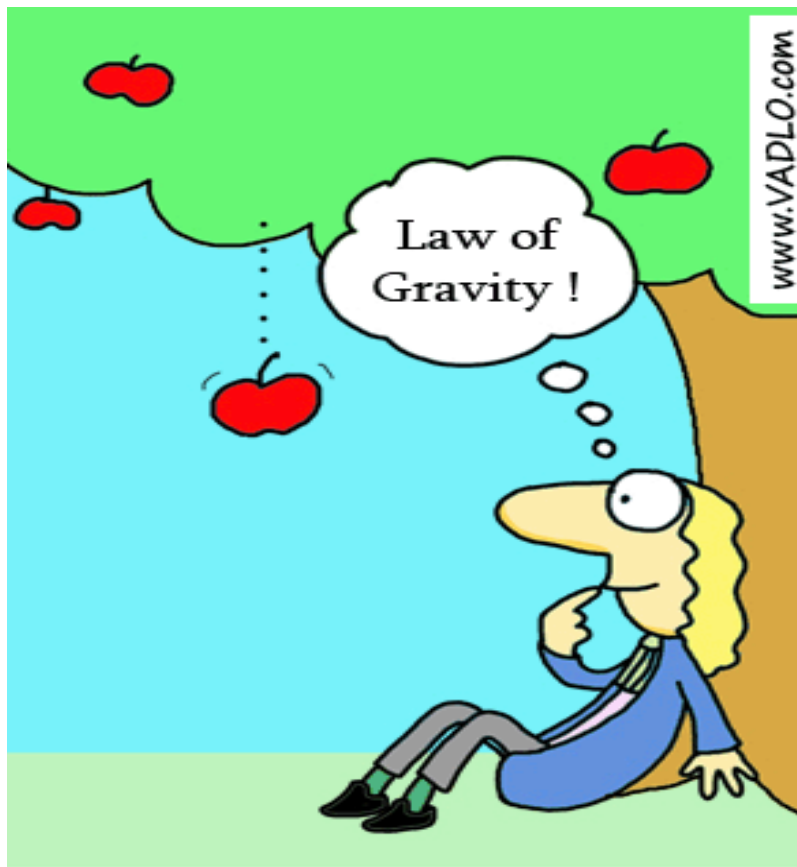
- ❑ **Worth of the scientific work**
- ❑ **Impact factor of the journal**



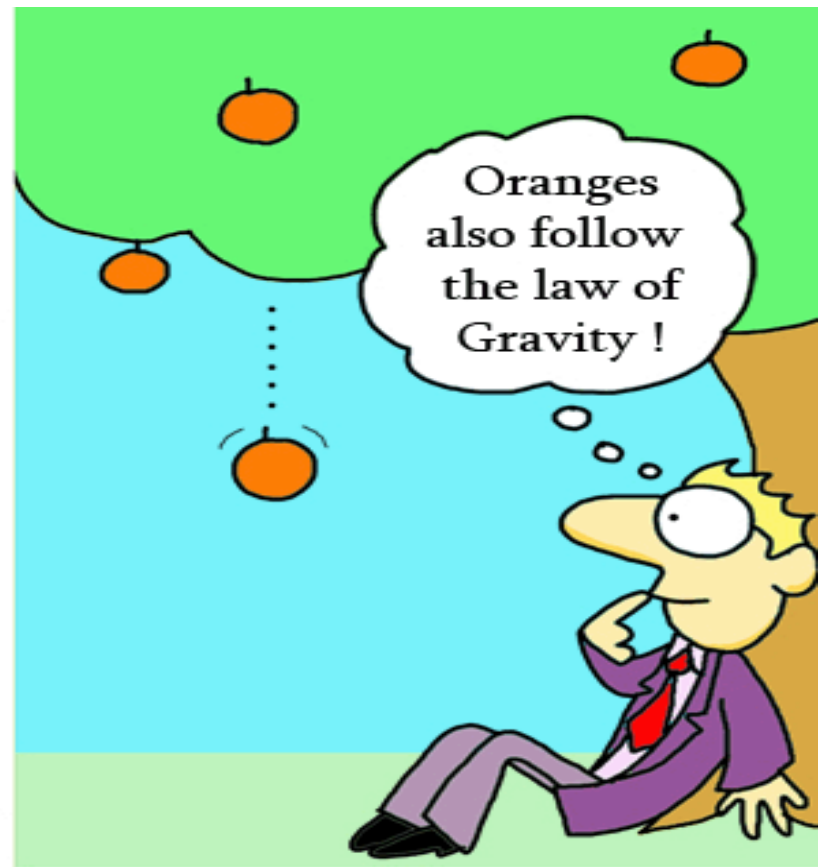
IMPACT FACTOR



IMPACT FACTOR



High Impact Paper



Low Impact Paper

IMPACT FACTOR



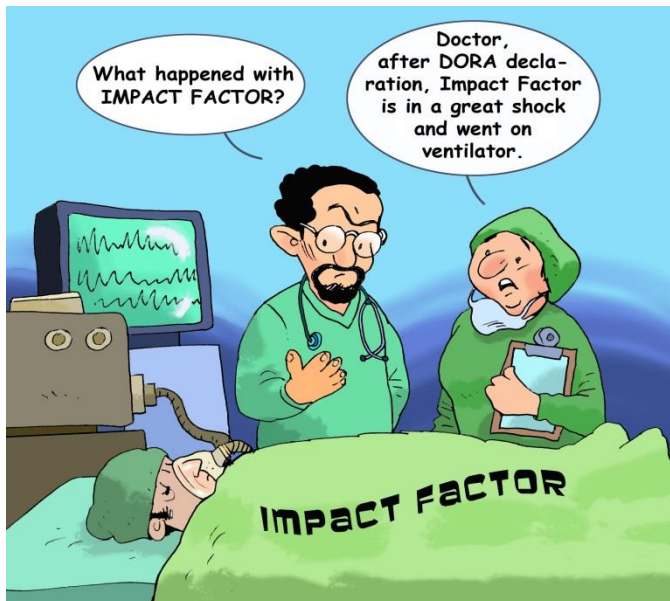
"My question is: Are we making an impact?"

IMPACT FACTOR

EDITORIAL

Page | 363

Impact factor went on a ventilator: Neither died nor buried



Sultan Ayoub Meo

*Professor of Physiology, Department of Physiology, College of Medicine, King Khalid University Hospital, King Saud University, P.O. Box 2925. Riyadh 11461. Saudi Arabia.
E-mail: smeo@ksu.edu.sa*

community believes that even with the limitations and weaknesses, Impact Factor is a simple and powerful tool for the global evaluation of the scientific quality of a journal.

How to cite this article: Meo SA. Impact factor went on a ventilator: Neither died nor buried. Saudi J Anaesth 2013;7:363-4.

HOW TO BECOME A SUCCESSFUL WRITER

- Writing is a skill born **from practice**
- First step to become a good writer is becoming a **devoted & careful reader**
- Multiple **rewriting with constructive criticism from a mentor**



BEFORE BEGINNING TO WRITE



ANALYSE THE PROBLEMS & ASK YOURSELF

What **information** do I wish to present ?

What **specific group of readers** I am writing for?

What **background information readers have**?

What is the **logical sequence** in which I should present the information to the readers?

ASPECTS OF MEDICAL WRITING



MEDICAL EDUCATOR WORKS AT FIVE CONSTANT STAGES

- Thinking & planning the structure
- Thinking about the readers
- Choosing the words
- Forming the sentences
- Building the paragraphs

MANUSCRIPT WRITING



STEPS TO FOLLOW

THINK



WRITE



STOP



REVIEW

THINK AGAIN





THINK AND WRITE

This step should precede, follow, and be interspersed with the others.

- Do not try to rush** through the entire process
in one continuous effort, but continually
- Stop** [What you have written]
- Review** [What you have done]
- Think again** [What is to come]



TITLE

- Title is the first part of the manuscript, a reader looks at
- **A good title is like an honest advertisement**, the reader will be attracted to the manuscript
- **A poor title is like a quarantine sign**, the reader will approach only close enough to read the sign and **then hurry away**

Peter Morgan, 1986]



TITLE

A GOOD TITLE MUST HAVE

- ❑ Good taste
- ❑ Fascinate the readers
- ❑ Same tone as the essay
- ❑ Easy To catalogue

[Packer et al., 1989; Greenberg, 1992]



TITLE

WHAT THE TITLE DESCRIBE

The title usually describes the subject matter of the article: **Effect of Smoking on Academic Performance**

Sometimes a title that summarizes the results is more effective: **Students Who Smoke Get Lower Grades**



ABSTRACT

Abstract consists primarily of **answering the questions:**

- Why did you start?
- What did you do?
- What did you find?
- What does it mean?



ABSTRACT

WHAT THE ABSTRACT DESCRIBE

- ❑ Abstract is a condensed version of full scientific paper
- ❑ Written after the manuscript is completed
- ❑ Should be informative, summarizes the entire information
- ❑ Provide overview of the facts that will be laid out in detail in the paper itself.

COMMON PROBLEMS IN ABSTRACT



- ❑ Too long
- ❑ Too much detail
- ❑ Too short
- ❑ Failure to include important information



INTRODUCTION

FUNCTIONS OF THE OPENING

- ❑ To engage the **reader's attention**
- ❑ To identify the **central issue of the subject**
- ❑ To create the **tone of the manuscript**
- ❑ Discuss **existing state of knowledge**
- ❑ Discuss **gaps in knowledge** which study will fill.
- ❑ State **what you intend** to do

METHODS

GENERAL PRINCIPLES



- Study design / types/ consent
- Study protocol / inclusion / exclusion criteria
- Reference to standard procedures / techniques
- IT Skills
- Data collection / analysis / statistical methods
- Ethical statement
- Strength / limitations (Mainly at the end of discussion section)

METHODS

GENERAL PRINCIPLES



Important part of the manuscript

Inappropriate method is the most common cause of absolute rejection of a manuscript.

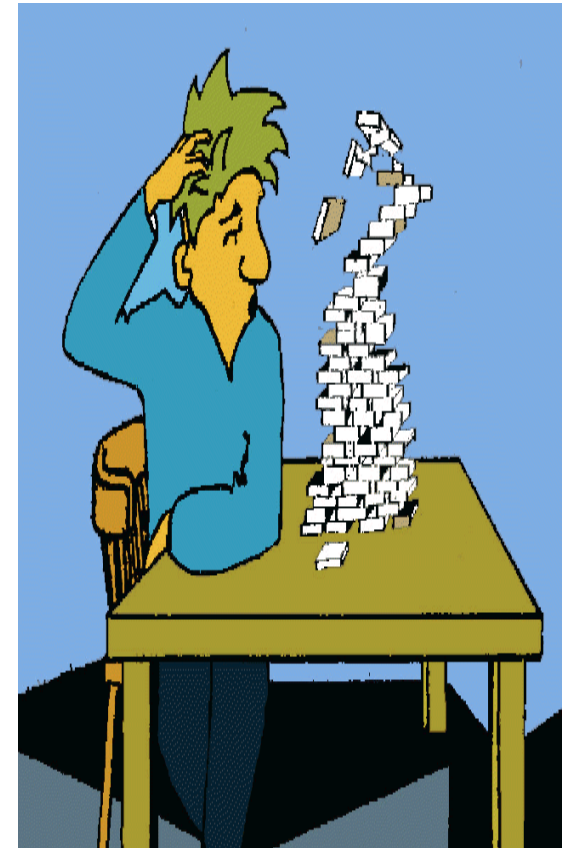
Main aim is to **describe, and sometimes defend, the experimental design** and to **provide sufficient detail so that a worker can reference the study.**

If standard methods of measurement are used appropriate references required.



RESULTS

- ❑ The heart of the paper
- ❑ Provide a logical progression
- ❑ Provide enough interpretation
- ❑ Avoid lengthy analysis
- ❑ Avoid duplication of information





DISCUSSION

First paragraph

State major findings / Paraphrase the abstract

Middle paragraphs [4-6 paragraphs]

What gaps in knowledge remain to be filled?

Discuss your results with the findings of others

Never discuss prior work without reference

Refer Tables and Figures

Last paragraph

Point out where further gaps in knowledge could usefully be filled instead of "further research is needed".

Conclusion.....Main message [1-2 paragraphs]

MOST FREQUENT REASONS FOR REJECTION OF A MANUSCRIPT



- Small sample size or biased
- Insufficient problem statement
- Inaccurate data reported
- Incomplete statistics
- Over interpretation of the results
- Insufficient data presented
- Defective tables or figures
- Outdated review of the literature
- Great science but ugly package

PEER REVIEW PROCESS



PEER REVIEW PROCESS



The process for certifying the legitimacy of written manuscripts typically consists of

three main actors:

Authors

Editors

Referees [reviewers]

Two other actors exist, not directly involved in the peer-review process:

Publisher & Audience



PROBLEMS WITH THE PEER REVIEW



REVIEWER 1

□ I found this manuscript extremely muddled with many deficits.....

REVIEWER 2

□ The manuscript is written in clear style with novel ideas and would be understood by any reader.....



REPLY TO REVIEWERS COMMENTS



Stepwise reply the each question

Politely & tactfully

Use flexible words

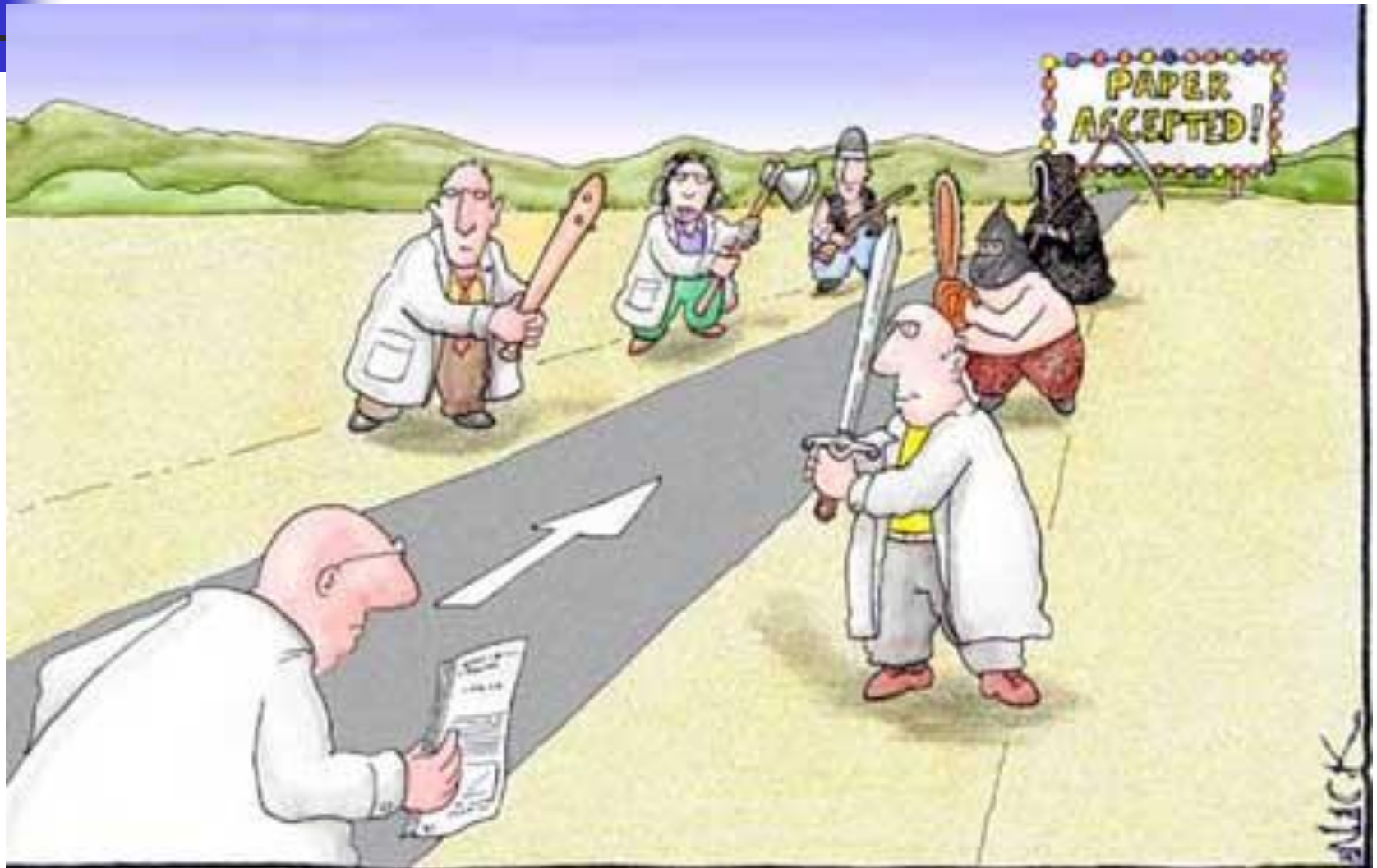
Try to throw the ball in his court

I agree but

You are right, although.....

Try to strengthen your reply with references

IF MANUSCRIPT ACCEPTED / PUBLISHED



IF MANUSCRIPT ACCEPTED / PUBLISHED



WINING TEAM

If you are convinced about the quality of the work

The next step is to put all the key players [IMRAD] at the right place



CONCLUSION



- ❑ Scientific manuscript writing must have a clear purpose with strongly focused outcomes and objectives
- ❑ The writing environment should be supportive, motivating, challenging & non threatening

CONCLUSION



- ❑ Scientists while writing, should select the appropriate journal, consider the core message of the manuscript, novelty of the research work, type of the readers & prestige of the journal
- ❑ Institutes should provide standardized training services for improving the scientific writing skills

MED SCIENTISTS WITH PUBLICATIONS

MED SCIENTISTS WITHOUT PUBLICATIONS





THANK YOU