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How Research Impact is measured?

What are the resources for assessing impact?

How to improve our research impact?

## پژوهش پاسخگو، نافع، کاربردی، هدفمند، محصول محور



✓ هر پژوهشی باید با یک سوال آغاز گردد.

√ هر پژوهشی برای پاسخ به یک سوال بی پاسخ طراحی شده است.

√ پیدا کردن راه کار برای حل مشکل



## هدف از پژوهش

پاسخ دادن به یک سوال بی جواب، پیدا کردن راه کار برای

حل مشكل يا ارتقا يك فرايند و مسير



## اگر در یک پژوهش، سوال پژوهشی به درستی انتخاب شود

عملا میتوانیم پژوهش نافع و کاربردی داشته باشیم.



#### Publish or Perish?

#### PUBLISH PERISH



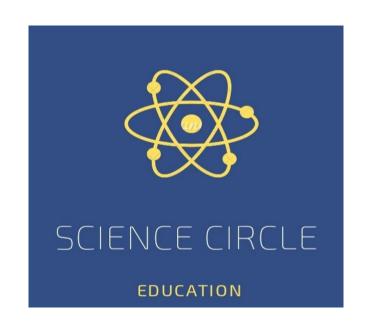
تاكيد بر اهميت انتشار مقاله

#### Getting Found, Staying Found & Increasing Impact



1) Doing research

2) Research publication



3) Knowledge dissemination

4) Knowledge utilization and application

Research impact is defined as how broadly scholarly

research is being read, discussed, and used both inside



and outside of the academy.

(Australian Research Council)

Research impact is the contribution that research makes to the

economy, society, environment or culture, beyond the



contribution to academic research.

https://www.ukri.org/about-us/research-england/research-excellence/ref-impact/

An effect on, change or benefit to the economy, society,

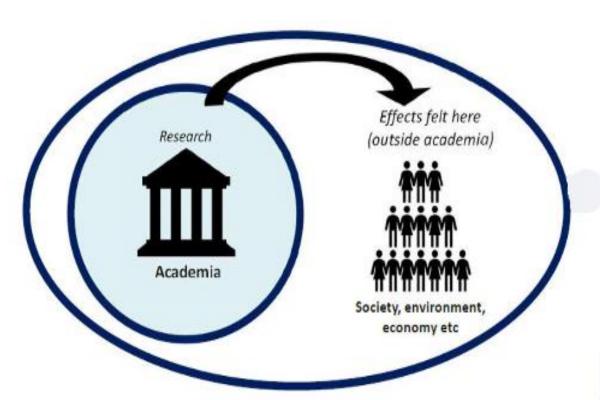
culture, public policy or services, health, the environment



or quality of life , beyond academia.

Any provable Effect (Benefits ) of Research in

Real World is called impact.



#### Pathways to Research Impact

#### Inputs

Time and material resources e.g. research income, staff, infrastructure

#### Activities

Research work, facility use, community and stakeholders engagement

#### Outputs

Deliverables from the research project e.g. publications, IP, patents, media, policy briefings, presentations

#### **Outcomes**

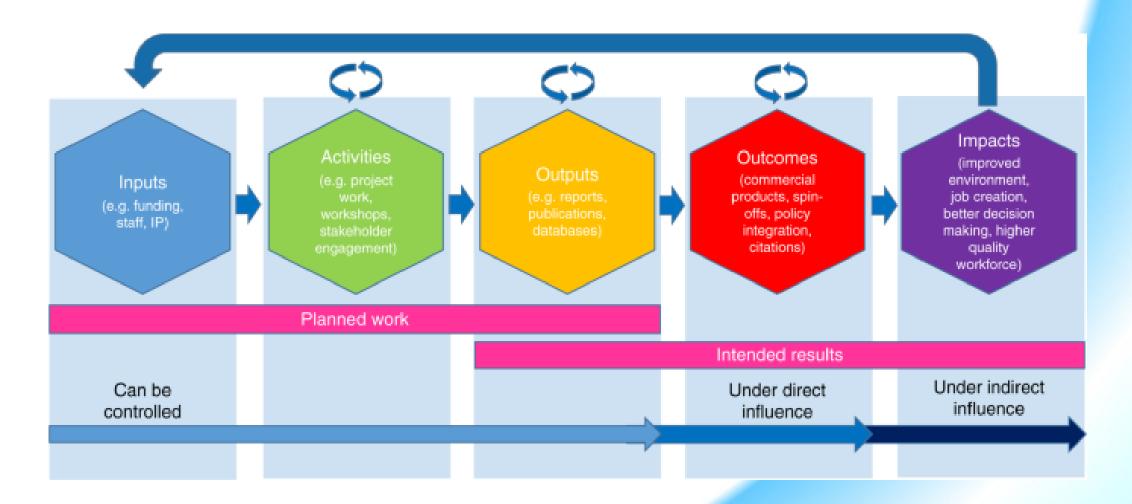
Changes that happen e.g. change in policy, new companies, improved training, commercial changes

#### Impact

Measurable change that occurs e.g. lower unemployment, increased quality of life, reduced accidents

Impact Pathway © CQUni adapted from Kellogg Foundation Model & ARC Policy Impact Pathway Table

#### **Assessment of Research Impact**



#### A real case of Research Impact

> Horm Res. 2004;62(2):79-83. doi: 10.1159/000079392. Epub 2004 Jun 24.

## Prevalence of congenital hypothyroidism in Isfahan, Iran: results of a survey on 20,000 neonates

Mahin Hashemipour <sup>1</sup>, Massoud Amini, Ramin Iranpour, Gholam Hossein Sadri, Narges Javaheri, Sassan Haghighi, Silva Hovsepian, Abbas Ali Javadi, Mahdi Nematbakhsh, Goshtasb Sattari

Affiliations + expand

PMID: 15237248 DOI: 10.1159/000079392

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Affiliations + expand

PMID: 15237248 DOI: 10.1159/000079392

## output

#### Abstract

**Aims:** To evaluate the prevalence of congenital hypothyroidism (CH) in a screening program performed for the first time in Isfahan, Iran.

**Methods:** From May 2002 to December 2002, T4 and TSH serum concentrations of 20,000 3- to 7-day-old newborns, born in all 17 hospitals of the city, were measured by radioimmunoassay and immunoradiometric assay, respectively. The newborns with abnormal screening results (TSH >20 mIU/l, T4 <6.5 microg/dl and based on the weight) were re-examined.

**Results:** Of 531 recalled subjects (recall rate 2.6%), 54 were confirmed to be hypothyroid, showing a prevalence of 1:370 for CH.

**Conclusion:** Considering the high frequency of CH, the necessity of implementing a routine screening program in the healthcare system of Isfahan Province is emphasized.

#### outcome

#### تاریخچه و طراحی برنامه کشوری غربالگری بیماری کم کاری نیرویید نوزادان در ایران

تخمين زده شد.

با توجه به گذار اپیدمیولوژیک از شرع و بروز بالای بیماریهای واگیر به غیرواگیر در سالهای اخیر، مداخله در هر سه سطح پیشگیری (اولیه، ثانویه و ثالثیه) در مدیریت بیماریهای غیرواگیر جزو اولویتهای بهداشتی کشور قرار گرفته است. در دهه ۶۰ و قبل از اجرای برنامه غنی سازی نمک با بد، دکتر عزیزی و همکارانشان اقدام به غربالگری توزادان برای بیماری کمکاری تیروبید کردند. اما به علت کمبود ید میزان فراخوان بسیار بالا بود، لذا این اقدام پس از مدتی متوقف گردید مطالعاتی در ارتباط با میزان بروز بیماری کمکاری تیروبید در دانشگاههای علوم پزشکی مختلف (دکتر عزیزی و همکاران - دانشگاه شهید بهشتی، دکتر کرمیزاده و همکاران - دانشگاه فارس و دکتر هاشمی بور و همکاران - دانشگاه اصفهان) انجام شد. نتایج حاصل از کلیه این مطالعات نشان داد که بروز بیماری کمکاری تیروبید در نوزادان کشور بسیار بالاست. با توجه به پژوهشهای انجام شده در اصفهان، تهران و شیراز، بروز کمکاری تیروبید در کشور ۱ بیمار در هر ۱۰۰۰ نوزاد زنده متولد شده



بیماری کمکاری تیرویید نوزادان، وضعیتی از کمبود هورمون تیرویید قابل درمان است که در صورت عدم تشخیص به هنگام و یا درمان نامناسب، می تواند موجب بروز عقب ماندگی شدید و اختلال در رشد کودک شود. عدم تشخیص و درمان مناسب و به هنگام بیماری در مبتلایان، بار بیماری سنگینی را بر خانواده و جامعه وارد می کند. در حالی که در صورت تشخیص به هنگام، درمان ساده، آسان، ارزان و موثر است. با غربالگری نوزادان و شناسایی بیماران و درمان مناسب آنان، عوارض جدی بیماری اتفاق نیفتاده و با حفظ ضریب هوشی طبیعی در بیمار، فردی مولد و سالم به جامعه تحویل داده می شود.

ادغام برنامه کشوری غربالگری نوزادان برای بیماری کـمکـاری تیروییـد، در مهر ماه سال ۱۳۸۴، اجرای هم زمـان آن در روسـتاها و شـهرها، دسـتیابی بـه پوشش بیش از ۹۷٪ در کمترین زمان ممکن، شـروع درمـان در کلیـه بیمـاران شناسایی شده، حفظ ضریب هوشی طبیعی در همه بیماران تحـت درمـان، دارا بودن هزینه به سـود ۱ بـه ۲۲ و بـسترسـازی مناسـب بـرای غربـالگری دیگـر بیماریهای مهم و قابل غربالگری در نوزادان، از ویژگیهای مهمی است که این برنامه را در دنیا بی نظیر کرده است.

تاکنون بیش از ۱۲ میلیون نوزاد غربالگری شده و تعداد زیادی بیمار شناسایی و درمان شدهاند. بدون اجرای این برنامه عقب ماندگی ذهنی در درجات مختلف در این بیماران غیر قابل اجتناب بود.

INPACT



B

Title: Prevalence of congenital hypothyroidism in Isfahan,

Iran: Results of a survey on 20,000 neonates

Author(s): Hashemipour, M., Amini, M., Iranpour, R., (...),

Nematbakhsh, M., Sattari, G.

Published/Type: 2004 / Review

Journal: Hormone Research, 62(2), pp. 79-83

Abstract: Aims: To evaluate the prevalence of congenital hypothyroidism (CH) in a

screening program performed for the first time in Isfahan, Iran. Methods:

From May 2002 to December 2002,  $T_4$  and TSH serum concentrations of

20,000 3- to 7-day-old newborns, born in all 17 hospitals of the city, were

measured by radioimmunoassay and immunoradiometric assay, respectively. The newborns with abnormal screening results (TSH >20 mIU/l,  $T_4$  <6.5  $\mu$ g/dl

and based on the weight) were re-examined....

Collaborations:

View at: ☐ Scopus ☐ PubMed





## استناد (citation) همیشه نماد Impact نیست.

یک مقاله میتواند زیاد استناد نگرفته باشد ولی اثر بخش باشد. (یک مقاله

میتواند Research Impact به مفهوم citation نداشته، ولی اثرگذار باشد)

Social impact, Economic impact, social impact, .....

#### Research funders and research organizations

globally are looking to measure impact.



## Steps in scientific writing

#### **Design well**

**Decide politics** 

**Choose journal** 

Read instructions to authors/papers

**Prepare drafts** 

**Submit** 

Scientific Writing



#### Different types of Research Impact

☐ Social impact

☐ Impact on health and wellbeing

☐ Clinical impact

☐ Environmental impact

☐ Economic impact

☐ Policy influence and change

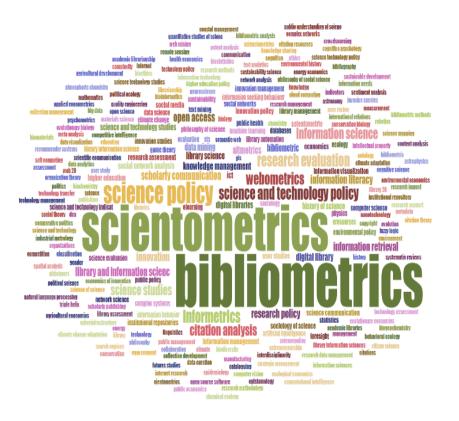
☐ Technological developments



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How to improve our research impact?







ارزیابی اثربخشی پژوهش



### **Altmetrics (Alternative Metrics)**

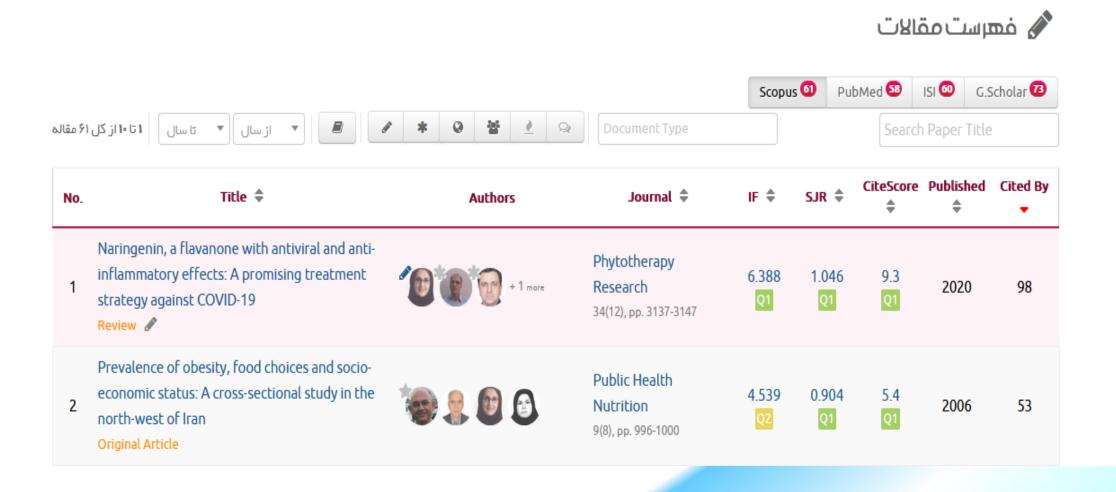
**Article Level Metrics** 

# Altmetric



Attention score (252, 37, 115, ...)

#### سامانه علم سنجى



Title: Naringenin, a flavanone with antiviral and anti-

inflammatory effects: A promising treatment strategy

against COVID-19

Author(s): Tutunchi, H., Naeini, F., Ostadrahimi, A., Hosseinzadeh-

Attar, M.J.

Published/Type: 2020 (2020-12-1) / Review

Journal: Phytotherapy Research, 34(12), pp. 3137-3147

۰۰ استنادات



Abstract:

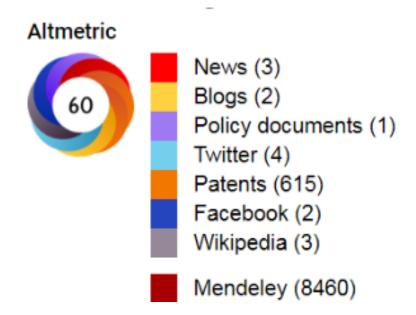


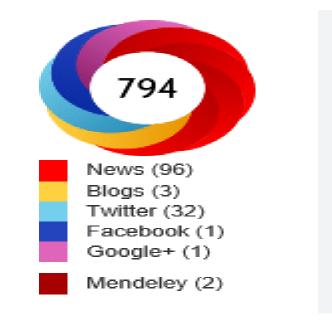
At the end of 2019, a novel flu-like coronavirus named COVID-19 (coronavirus disease 2019) was recognized by World Health Organization. No specific treatments exist for COVID-19 at this time. New evidence suggests that therapeutic options focusing on antiviral agents may alleviate COVID-19 symptoms as well as those that lead to the decrease in the inflammatory responses. Flavonoids, as phenolic compounds, have attracted considerable attention due to their various biological properties. In this review....

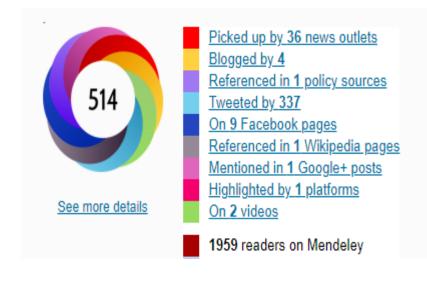
Collaborations:



View at: 
☐ Scopus ☐ PubMed







# Citation ≠ Impact Altmetrics ≠ Impact

Citation و Altmetrics الزاما Impact نيستند، بلكه نمادي از Impact ميباشند.



#### How to improve Research Impact?

Research Impact and Visibility:

1) Pre-publication phase visibility

2) Post-publication phase visibility

#### **Publication process**

- 1) Preparing your article
- 2) Publishing your article
- 3) Promoting your published article
- 4) Monitoring your article



# **Publication process**

## **Pre-publication**

- ☐ Preparing your article
- ☐ Publishing your article

## **Post-publication**

- Promoting your published article
- ☐ Monitoring your article







# **Pre-publication**

☐ Select research topics with a high potential academic

and/or societal relevance.

- ☐ Consider the related Hot Topics
- ☐ Don't forget that a good topic will result in a good impact.

# **Pre-publication**

## Institutional, National & International Collaboration





# How collaborations increase research impact?



Positive effect on the <u>number of citations</u>

- ☐ Spend time on abstract and introduction & conclusion.
- ☐ Increase impact of research with easy-to-understand graphs and

professional illustrations.

☐ Use clear and correct manuscript language.



☐ Consider brevity and clarity in paper, conciseness and precision in title.

☐ Ensure your research output has a clear title that is direct

interesting, concise, precise, and unique. This will promote

readership and attract citations from beyond your own discipline.

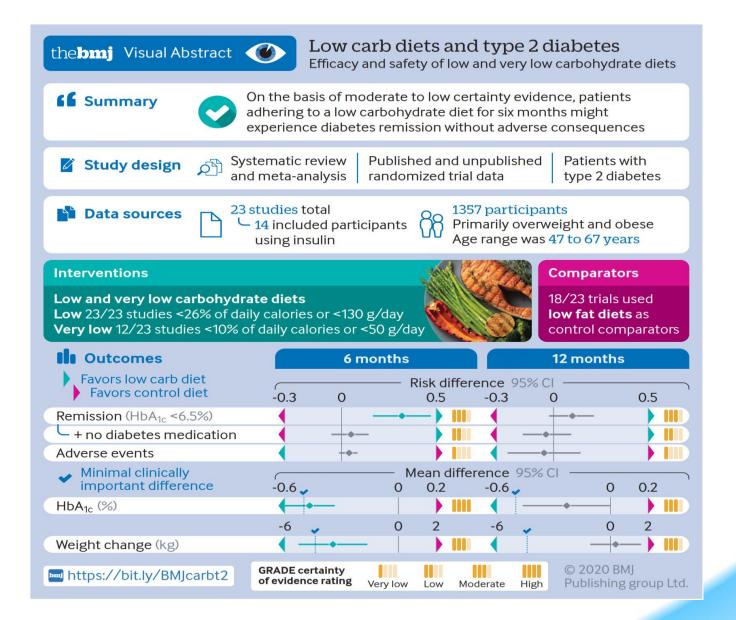
☐ Think about writing a plain language summary of your research

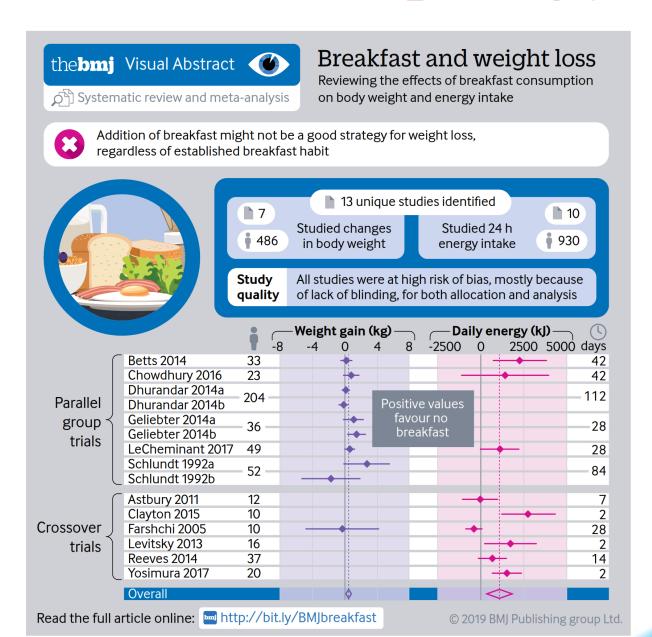
that is understandable to a non specialist audience including public

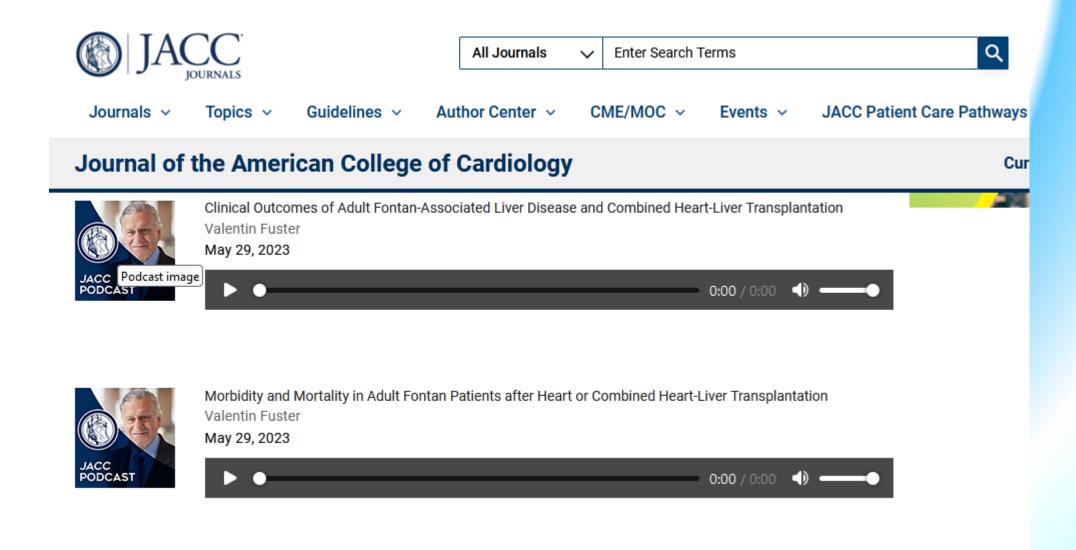
or researchers from other disciplines.

Enrich your article to present your research in the best possible ways:

- ☐ Search Engine Optimization (keywords, Captions, Highlights)
- ☐ Graphical Abstract
- ☐ Using Multimedia (Editorial Podcasts, Audio Slides)







### JACC Podcast

Clinical Outcomes of Adult Fontan-Associated Liver Disease and Combined Heart-Liver Transplantation

Published On: May 29, 2023

Speaker(s): Valentin Fuster





### Read the article(s) related to this podcast:

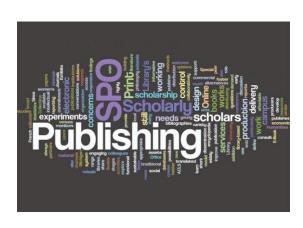
Clinical Outcomes of Adult Fontan-Associated Liver Disease and Combined Heart-Liver Transplantation

### Featured in this issue:

Journal of the American College of Cardiology Vol. 81 Iss. 22

# Publishing your article

- ☐ Choose Right Journal to publish your manuscript.
- ☐ Consider Open Access Journals.
- ☐ Consider the <u>indexing databases</u> of target journal.

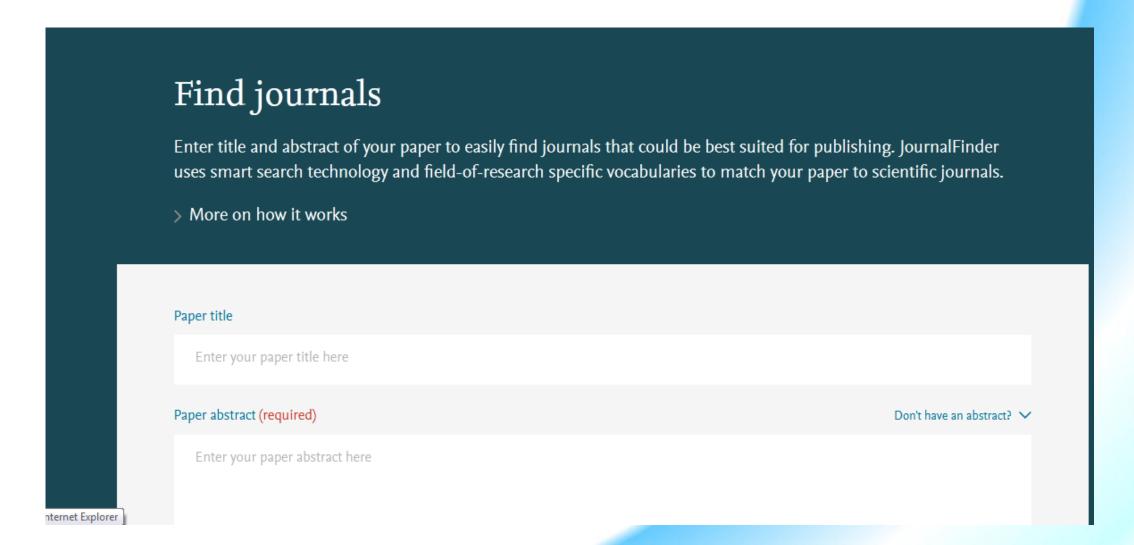


# Considerations in selecting a journal

- 1. National or international audience?
- 2. Language?
- 3. Databases indexes Journal?
- 4. Multidisciplinary or specialty journals?
- 5. The journals content area/scope?
- 6. Chances of acceptance?
- 7. What about the impact factor?
- 8. Practical matters (time to publication, etc.)



# Elsevier Journal Finder https://journalfinder.elsevier.com/



# Springer journal suggester https://journalsuggester.springer.com/

#### SPRINGER NATURE

Journal suggester

#### Personalized recommendation

Our journal matching technology finds relevant journals based on your manuscript details

### Over 2,500 journals

Search all Springer and BMC journals to find the most suitable journal for your manuscript

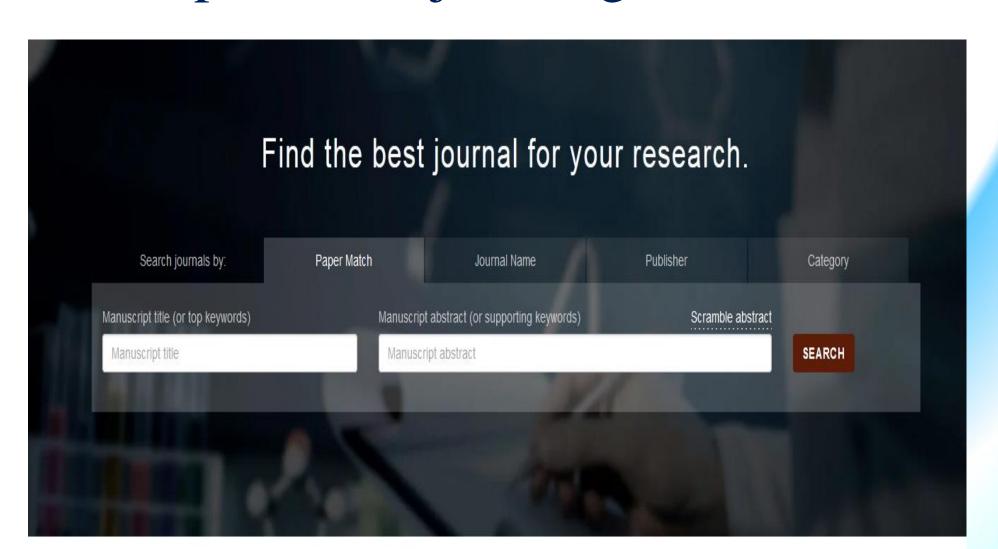
### **Author choice**

Easily compare relevant journals to find the best place for publication

Enter your manuscript details to see a list of journals most suitable for your research.	
Manuscript title	
Manuscript text	1

## Journal Guide

https://www.journalguide.com/



# What are the benefits of preprints?

# Research impact

The research presented in preprint will be publicly available for other

researchers to cite and build upon more quickly.

# Promoting and monitoring your published article





Writing and publishing your scholarly article is not the

final step. You must market your research.

☐ To maximize your research impact, you must inform

everyone in your academic and social networks about it.

## "Examples of Social Networks"

## Scientific Social Networks

- http://www.researchgate.net/
- http://www.academia.edu/
- http://www.mendeley.com/

### General Social Networks

- http://www.facebook.com
- http://www.twitter.com
- http://www.linkedin.com

- ☐ Increasing <u>visibility</u> and enhancing impact of research
- ☐ The more visible you are, the more probable you make an impact



☐ Make & mind your academic profiles



- ☐ Use & update author identifiers and profiles:
  - ✓ ORCiD (Open Researcher and Contributor ID)
  - ✓ Google Scholar



- ✓ ResearcherID
- ✓ Publons



✓ Scopus Author ID





☐ Share links to your abstract or publication on

Academia, LinkedIn, on your website, your academic

institutions profile page, Facebook, Twitter, etc.

☐ When publisher policy permits, post your article/study to:

ResearchGate, Academia, Mendeley and elsewhere.

# **Post-publication Monitoring your article**

Publishers Research Dashboard

☐ Altmetric Indices

☐ Social Networks

☐ Scientometric Tools

