



# EVIDENCE-BASED MEDICINE

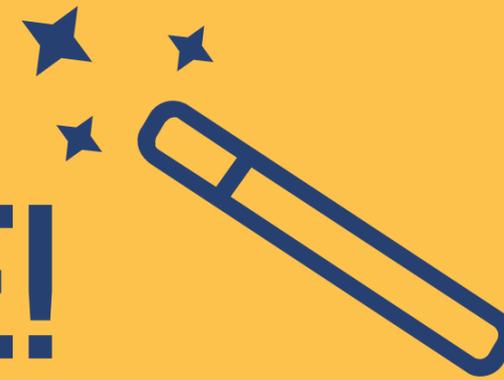
THE 5 LEVELS OF EVIDENCE IN EVIDENCE-BASED MEDICINE



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# HELLO THERE!



Ever thought that scientific publications are too complex?  
Or that publishing your research seems too daunting a task?

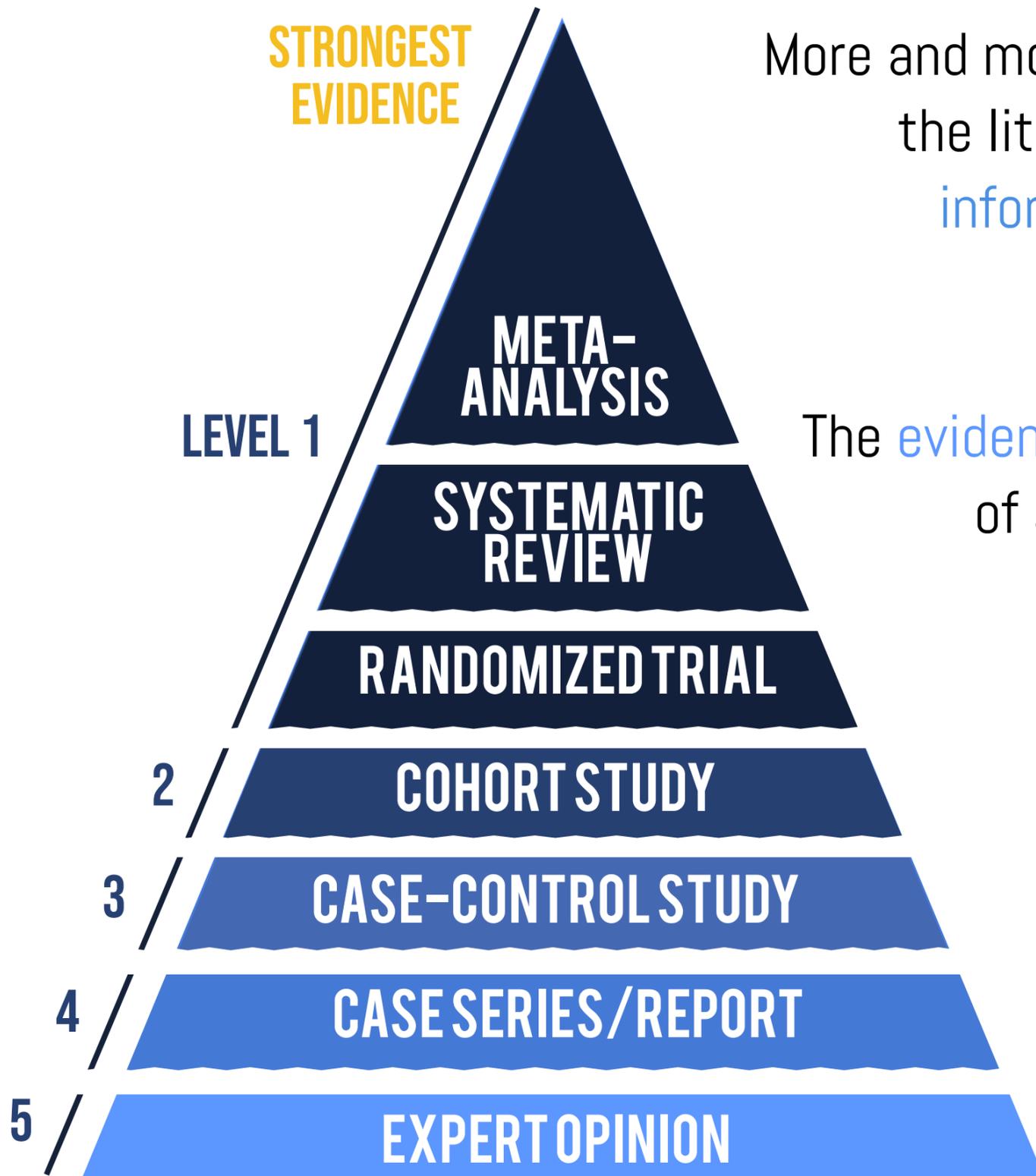
To make things easier, we have developed a series of bite-sized guides covering a range of topics on scientific publications.

Let's make the complex simple.

**TECH OBSERVER MEDICAL COMMUNICATIONS**

# EVIDENCE-BASED MEDICINE

**STRONGEST  
EVIDENCE**



More and more healthcare professionals are consulting the literature and gathering research evidence to inform their clinical decisions. However, not all published evidence are equally convincing.

The evidence pyramid to the left presents a hierarchy of study types. The higher up the pyramid, the more rigorous the study methodology and hence the more likely it is that the study design can minimize the effect of bias on the study results.

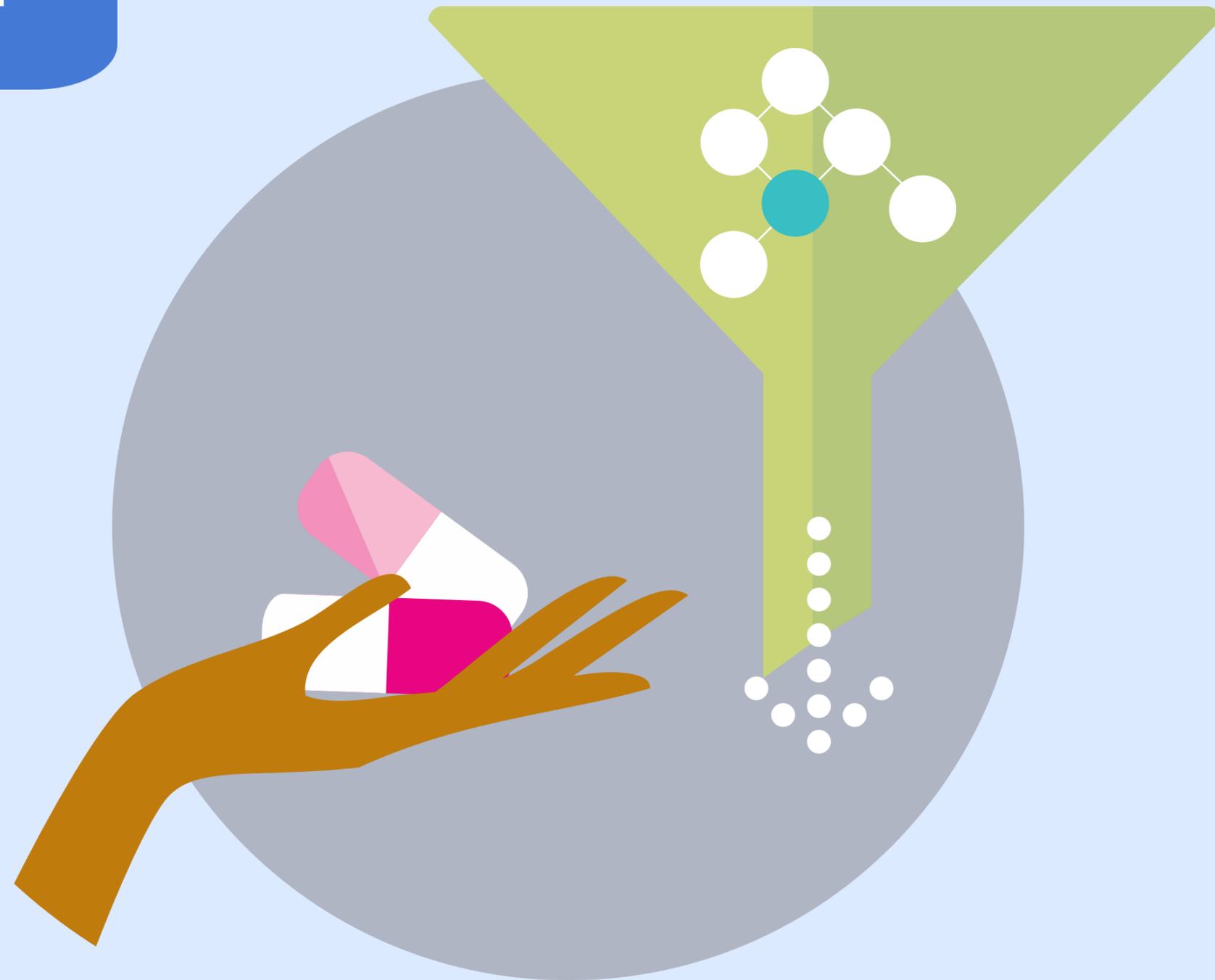
Here is a quick overview of the 5 levels of evidence in evidence-based medicine.

**WEAKEST  
EVIDENCE**

5

**LEVELS OF  
EVIDENCE IN  
EVIDENCE-BASED  
MEDICINE**

**LEVEL 1**



High quality randomized controlled trials and systematic reviews and meta-analyses of randomized controlled trials

# LEVEL 2



Cohort studies and systematic reviews of cohort studies

# LEVEL 3



Case-control studies and systematic reviews of case-control studies

LEVEL 4

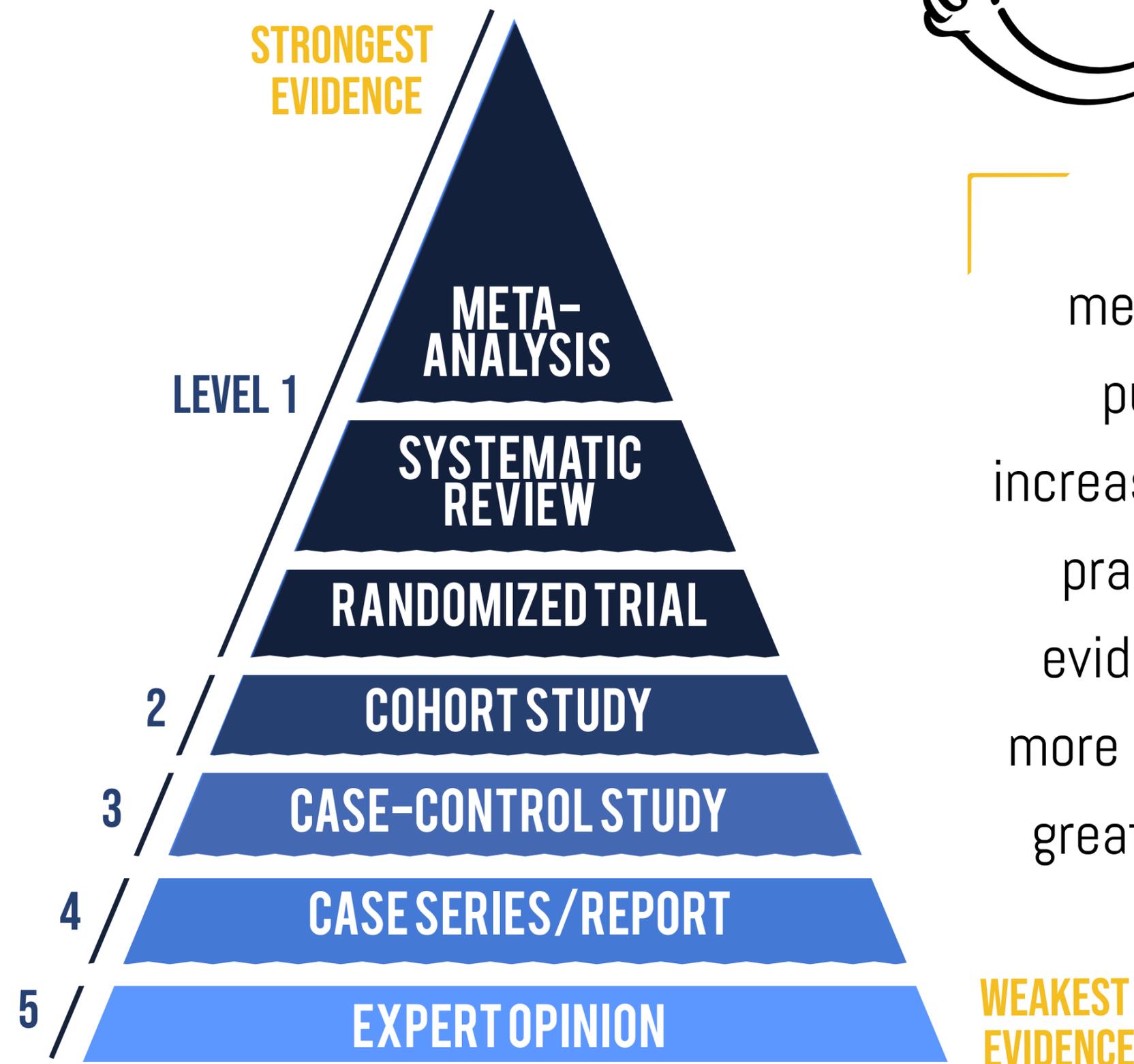


Case series and case reports

# LEVEL 5



Expert opinion and narrative reviews



## WRAPPING UP

The evidence-based medicine movement has given publications of research an increasingly influential role in clinical practice. Studies higher up the evidence pyramid are likely to be more rigorous and less biased, with greater potential to **influence** and **inform** clinical practice.

# APPENDIX

**Meta-analysis:** A special case of a systematic review that provides a **quantitative summary** of the studies reviewed.

**Systematic review:** A type of literature review that employs a **standardized and rigorous methodology** to review scientific literature.

**Randomized trial:** A type of clinical trial that aim to make a fair **comparison between a new treatment and the existing treatment**, or between two (or more) existing treatments, to see which one works best.

**Cohort study:** A **longitudinal study** that follows a large group of people over time.

**Case-control study:** A **comparison study** in which two existing groups differing in disease or outcome are identified and compared on the basis of some supposed causal attribute.

**Case series/report:** A **descriptive report** that illustrates novel, unusual, or atypical features identified in patients in medical practice.

**Expert opinion:** The **authors' expert view** on the current status of the field under discussion.



## QUESTIONS?

Tech Observer's friendly writers are always happy to help. Talk to us to find out more!

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