



Some comments on using of Web of Science Core Collection for bibliometric studies in *Ann Transl Med*. Vol. 8

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Comment on: Fang J, Pan L, Gu QX, *et al.* Scientometric analysis of mTOR signaling pathway in liver disease. *Ann Transl Med* 2020;8:93.

Liang MM, Meng Y, Zhou SM, *et al.* Research hotspots and trends analysis of ankylosing spondylitis: A bibliometric and scientometric analysis from 2009 to 2018. *Ann Transl Med* 2020;8:1445.

Li YZ, Wang XJ, Thomsen JB, *et al.* Research trends and performances of breast reconstruction: A bibliometric analysis. *Ann Transl Med* 2020;8:1529.

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In the *Annals of Translational Medicine*, Volume 8, Web of Science Core Collection was used in three different articles by Fang *et al.* (1), Liang *et al.* (2), and Li *et al.* (3).

The Web of Science Core Collection database is mainly designed for researchers to find literature, but the author uses it to conduct bibliometric research (4,5). In the articles (1,2), keywords were searched in the topic field including terms of title, abstract, author keywords, and *KeyWords Plus*. The “front page” (including the document title, the abstract, and the author keywords) as a filter has been proposed in 2012 and applied successfully in many bibliometric kinds of research (6,7).

Using the methods noticed in the two articles by Fang *et al.* (1) and Liang *et al.* (2) with “front page” as a filter, 2,068 publications and 7,250 publications were found in each of the articles respectively in *Table 1*. As a result, 499 publications (24% of the 2,068 publications) and 2,239 publications (31% of the 7,250 publications) did not contain searching keywords in their “front page.” These results show an unaccepted difference from the results in the two original papers (1,2). It was pointed out that the documents, which can only be searched out by *KeyWords Plus*, were irrelevant to the topic of a bibliometric study (8), for example highly cited review (9) with 100 citations or more entitled “Autophagy in the cellular energetic balance” (10) and an article entitled “Metformin suppresses intestinal polyp growth in *Apc^{Min/+}* mice” (11) do not contain search keywords “mTOR” and “liver” in their

“front page” were inappropriate in “Scientometric analysis of mTOR signaling pathway in liver disease” (I) if the search keywords are appropriate in the original paper (1). Similarly, classic article (12) with 1,000 citations or more entitled “The development of Assessment of SpondyloArthritis international Society classification criteria for axial spondyloarthritis (part II): Validation and final selection” (13) and review entitled “Five years of GWAS discovery” (14) do not contain search keywords spondylitis and ankylosing in their “front page” were inappropriate in “Research hotspots and trends analysis of ankylosing spondylitis: A bibliometric and scientometric analysis from 2009 to 2018” (II) if the search keywords are appropriate in the original paper (2).

Similar comments were also published in medical-related journals in recent years, for example, *Frontiers in Pharmacology* (15), *Chinese Medical Journal* (16), *Cleft Palate-Craniofacial Journal* (17), *World Neurosurgery* (18), *Indian Journal of Surgery* (19). However, the article entitled “Research trends and performances of breast reconstruction: A bibliometric analysis” by Li *et al.* (3) published in the *Annals of Translational Medicine*, used the bibliometric method with “front page” as a filter to improve the accuracy of the data in the paper. Sixteen percent of the total documents that do not contain search keywords in their “front page” were ignored in the article (3).

The authors in the two papers (1,2) used inappropriate methods to publish bibliometric papers in the *Ann Transl*

Table 1 Publications found using “front page” as a filter

Authors	Searching keywords	Conditions	TP (%)
Fang <i>et al.</i> (1)	“mTOR” and “liver”	WoSCC, Topic, 2004–2018	499 publications (24% of the 2,068 publications)
Liang <i>et al.</i> (2)	spondylitis and ankylosing	WoSCC, Topic, articles and review, English, 2009–2018	2,239 publications (31% of the 7,250 publications)

TP, number of publications without searching keywords in “front page”.

Med. This may result in misleading readers of the journal (19,20). Authors have the responsibility to use accurate methods in their publications.

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Footnote

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