

***"This is the pre-peer reviewed version of the following article: Garcia-Puente, M. , Pastor-Ramon, E. , Agirre, O. , Moran, J. M. and Herrera-Peco, I. (2019), The use of Sci-Hub in systematic reviews of the scholarly literature. Clin Implant Dent Relat Res., which has been published in final form at doi:[10.1111/cid.12815](https://doi.org/10.1111/cid.12815). This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions."***

Title: The use of Sci-Hub in systematic reviews of the scholarly literature.

Running title: Systematic reviews and Sci-Hub use.

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The recently published systematic review from Mishra and Chowdhary <sup>1</sup> in *Clinical Implant Dentistry and Related Research* about the evaluation of the available research on PEEK materials to find that whether PEEK material has favorable properties and can enhance osseointegration describes the use of Medline/Pubmed, Sci-hub, Ebscohost, Cochrane, and Web of Science databases as the sources of their literature search. Authors describe the Medical Subject Headings (MeSH ) terms and their combination that were used in the selected sources: (“Dental Implants” [Mesh]) AND (“PEEK”), (“PEEK Dental Implant” [MeSH]) AND (“Osseointegration”), (“PEEK Dental Implant” [MeSH]) AND (“Biofilm,” “Bone loss,” “Allergic reactions,” “Periimplantitis”), (“PEEK Abutment” [MeSH]) AND (“Microleakage”), (“PEEK Crown” (MeSH) AND (“Biofilm”). We would like to highlight that none of the previously reported terms are MeSH terms but “Dental Implants”, accordingly to the Pubmed MeSH database. In fact the search strings provided by the authors would not retrieve any results in Medline/Pubmed or Cochrane but “Dental Implants” [Mesh]) AND (“PEEK”). Mishra and Chowdhary <sup>1</sup> indicate that they have follow the PRISMA guidelines <sup>2</sup> for systematic reviews and meta-analyses, however it is intriguing how they could apply their search string in Sci-Hub <sup>3</sup> which neither accepts MeSH searching nor is a database. As commonly defined, “databases” organize collections of information which is not the case of Sci-Hub that bypass paywalls by obtaining leaked authentication credentials from educational institutions <sup>4</sup> providing full access to scholarly literature. In own words of the Sci-Hub creator Alexandra Elbakyan “Sci-Hub technically is by itself a repository, or a library if you like, and not a search engine (...)” <sup>5</sup>. So, it is for sure that none of the combinations of the above described MeSH terms could develop any result in a Sci-Hub search. Sci-Hub is not a literature database, it is rather a repository that allows in most cases a successful access to scientific literature <sup>4</sup> due to a script that downloads HTML and PDF pages from the Web but with obvious ethical and legal consequences due to copyright protections.

We would like to highlight that the manuscript from Mishra and Chowdhary <sup>1</sup> lacks of accuracy in their description of the search methodology used by the authors as some of the search strategies that are indicated to have been done are completely irreproducible, but also, although not being the manuscript an endorsement of the use of Sci-Hub, it should be advised that the use of Sci-Hub is at readers own risk as in many jurisdictions its use may constitute copyright infringement.

## References

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