Review of: "In-Vitro Antibacterial Activity of some Ganoderma Species: A Review"

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Potential competing interests: No potential competing interests to declare.

The title of the manuscript "*In-Vitro Antibacterial Activity of some Ganoderma Species: A Review*" must be revised.

The title mentions the review of antibacterial activity, but the abstract and review talk about the review of antibacterial and antifungal activities. Further, it is not logical to start with a description of Diabetic Foot Ulcer. DFU is not mentioned in the title or abstract.

English must be improved by a native English speaker.

Inappropriate citations include at least – the list is not full (majority of them are reviews):

Sudheer S, Bai RG, Muthoosamy K, Tuvikene R, Gupta VK and Manickam S. Bio sustainable production of nanoparticles via mycogenesis for biotechnological applications: A critical review. Environ. Res. 2022; 204: 111963.

[a], [b]Pimentel de Araujo F, Monaco M, Del Grosso M, Pirolo M, Visca P and Pantosti A. S. aureus clones causing osteomyelitis: a literature review (2000–2020). J. Glob. Antimicrob. Resist. 2021; 26:29-36.

[^]MaheshC, Galappaththi A, Patabendige NM, Premarathne BM, Hapuarachchi KK, Tibpromma S, Dai DQ, Suwannarach N, Rapior S, Karunarathna SC. A Review of Ganoderma Triterpenoids and Their Bioactivities. Biomole. 2022; 13(1): 24.

[a], [b], [c]Saravanan A, Senthil Kumar P, Karishma S, VoDVN, Jeevanantham S, Yaashikaa PR and George CS. A review on biosynthesis of metal nanoparticles and its environmental applications. Chemosphere. 2021; 264(2): 128580.

Wang L, Li JQ, Zhang J, Li ZM, Liu HG and Wang YZ. Traditional uses, chemical components and pharmacological activities of the genus Ganoderma P. Karst.: A review. RSC Adv. 2020; 10: 42084-97.

Alizadeh S, Seyedalipour B, Shafieyan S, Kheime A, Mohammadi P and Aghdami N. Copper nanoparticles promote rapid wound healing in acute full thickness defect via acceleration of skin cell migration, proliferation and neovascularization. Biochem. Biophys. Res. Commun. 2019; 517: 684-90.

[a], [b]Vijayakumar V, Samal SK, Mohanty S and Nayak SK. Recent advancements in biopolymer and metal nanoparticle-

based materials in diabetic wound healing management. Int. J. Biol. Macromol. 2019; 122: 137-48.

^Gong T, Yan R, Kang J and Chen R. 2019. Chemical components of Ganoderma. In Lin, Z. and Yang, B. (eds.) Ganoderma and Health. Adv. in Experim. Med. and Biol.Springer, Singapore. 2019; 1181: 59-106.

Check spelling and correct the Latin names of bacteria and fungi – a lot of mistakes:

Use Italic when required.

Some examples (the list is not full)

Burkholderia cepacia but not Burkholderia cepacian;

Brenneria quercinae but not Brenneria quercina;

Salmonella Typhi *but not Salmonella typhi. It is the serotype of Salmonella enterica* subsp*. enterica;*

Corynebacterium diphtheriae but not Corynebacterium diphtheria;

Salmonella Typhimurium *but not Salmonella typhimurium. It is the serotype of Salmonella enterica* subsp*. enterica;*

Salmonella Enteritidis *but not Salmonella Enteritidis. It is the serotype of Salmonella enterica* subsp*. enterica;*

Salmonella enterica but not Salmonella enteric;

Aspergillus flavus but not Aspergillusflavus;

Aspergillus niger but not Aspergillus niger;

Pseudomonas syringae pv. syringae or Pseudomonas syringae pv. Syringae;

Xanthomonas campestris pv. campestris or Xanthomonas campestris pv. Campestris;

Ganoderma australe but not *Ganoderma austral;*

S. aureus but not S. Aureus;

Physalospora piricola but not *physalosporapiricola;*

Enterobacter but not Entrobacter.

Use abbreviations for Latin names of bacteria and mushrooms. There is no need to write the full name of them always.

“The ZnO nanoparticles synthesized from *G. multipileum* showed a strong antibacterial effect against gram-positive (*K. pneumonia* and *S. aureus*) and gram-negative (*E. coli* and *P. aeruginosa*) bacteria” - *K. pneumoniae, but K. pneumonia ant is Gram-negative.*

Table has no title.

Lepidium sativum (garden cress) is a plant.

Revise the sections of the publication.

Check the names of the sections “Antimicrobial Activity of *Ganoderma* Species against Gram-Negative Bacteria” and “Antimicrobial Activity of *Ganoderma* Species against Gram-Positive Bacteria”. Antimicrobial should be changed to antibacterial. It should be described that not alive Ganoderma is used for the antibacterial effect, but Ganoderma extracts are used.

Take a look at the section *“Ganoderma* and its species” and the last sentence of this section *“Ganoderma* species include:*”* and take a look at the sentence a little below *“*These are just a few examples of *Ganoderma* species, and there are many more within the genus such as *G. pfeifferi*, *G. oregonense, G. multipileum, G.adspersum, G. sessile, G. lipsiense, G. colossus, G. curtisii, G.lobatum, G. mbrekobenum*, *G. sinense, G. tornatum, G. tuberculosum* , *G. zonatum, G. miniatocinctum* and *G. weberianum* etc.*”).* The sequence of description must be logical.

The section for describing the forms (extracts and ..) of Ganoderma preparations must be included.

What about in vivo tests of Ganoderma preparations for DFU patients? There is no link or connection between DFU and Ganoderma in the publication. Feline or canine skin, or other diseases could be described in such a way instead of DFU, and the connection could be the same.