



**SDI Review Form 1.6**

Journal Name:	<a href="#">Journal of Advances in Microbiology</a>
Manuscript Number:	Ms_JAMB_46686
Title of the Manuscript:	Antibacterial activity of <i>Anabaena circinalis</i> isolated from fresh water comparison with some antibiotic
Type of the Article	Short Research Articles

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

**PART 1: Review Comments**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Compulsory</b> REVISION comments	<div></div> <p>Comments to the Editor and Authors:</p> <p>The manuscript 46686.v1 entitled "Antibacterial activity of <i>Anabaena circinalis</i> isolated from fresh water comparison with some antibiotic", submitted to Journal of Advances in Microbiology shows news unpublished results on the antibacterial activity of extracts obtained from the cyanobacteria <i>Anabaena circinalis</i>. Cyanobacteria samples were isolated from fresh water and extracts were tested at different concentrations against four pathogenic bacteria. The antibacterial activity of <i>Anabaena circinalis</i> extracts was compared to that of two antibiotics. Besides, total phenol content was determined.</p> <p>The scope of this study is interesting. Cyanobacteria are a deeply studied microorganisms but the interest to increase the possibilities for its biotechnological applications is high. Results presented give a contribution to the field in accordance with the scope of the journal.</p> <p>Methods and techniques employed are appropriate. The manuscript presents a set of measurements and data however several changes may be introduced to the work to become more organized and understandable.</p> <p>Paper is insufficient for publication in its present form but as it includes new results that could contribute to the field, paper may become publishable after improvement, following different suggestions and recommendations. Paper should be ACCEPTED AFTER MAJOR REVISION.</p> <p>Some considerations and comments that might help to improve the article:</p> <div></div> <p>Title: Antibacterial activity of <i>Anabaena circinalis</i> isolated from fresh water</p>	ok Modified according to instructions



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	<p><b>Abstract:</b></p> <p>The abstract describes the essential information in the work. Line 20: please write antibiotic full names for AMP and OXA.</p> <p><b>Key words:</b> <i>Anabaena circinalis</i>, identification, isolation, antimicrobial activity, algal extract</p> <p><b>Introduction:</b></p> <p>-Lines 54 to 56: please reformulate this sentence "An increasing number of such metabolites are being found to be directed against oxygenic photosynthetic processes, which, in the microbial world, are unique to algae and cyanobacteria". to be more understandable:</p> <p>-Others comments are given in section introduction, please check the text.</p> <p><b>Material and methods:</b></p> <p>-Please correct headline titles as recommended (see text). - Line 78 to 84, Please put MBL composition in a table, Please see this document as example: <a href="https://epub.ub.uni-greifswald.de/frontdoor/deliver/index/docId/1333/file/Diss_Bui_Thanh_Huong.pdf">https://epub.ub.uni-greifswald.de/frontdoor/deliver/index/docId/1333/file/Diss_Bui_Thanh_Huong.pdf</a> - Line 110: "The mixture was separated by filtration" how? Please clarify. -Please check the other comments for section "Material and methods" in the text.</p> <p><b>Results</b></p> <p>-Results are presented according to 2 Figures that are relevant but you may add a figure showing inhibition diameters of cyanobacteria and of antibiotics against indicator bacteria (this suggestion is optional). -Line 151 to 154: please reformulate this sentence it is not clear "Whereas, <i>Staphylococcus aureus</i> was inhibited by the extract at a concentration of 25% and <i>Achromobacter xylosoxidans</i> at a concentration of 50%. This indicate that these two pathogens are the most resistant microorganism" - Others comments are given please check the text.</p> <p><b>Discussion</b></p> <p>-Several studies have been carried out on the antimicrobial activity of <i>Anabaena</i> species such as:</p> <ol style="list-style-type: none"> <li>1- Antibiotic activity of two <i>Anabaena</i> species against four fish pathogenic <i>Aeromonas</i> species by Neveen Abdel-Raouf et al. 2008</li> <li>2- Antimicrobial activity of crude extracts of cyanobacteria <i>Nostoc commune</i> and <i>Spirulina platensis</i> by Farag A. Shaieb et al. 2014</li> </ol> <p>and others works.</p> <p>Please discuss your work with these studies and try to highlight the originality of your work. For example, in the work by Farag A. Shaieb et al. 2014, <i>Anabaena circinalis</i> was inactive against <i>Staphylococcus aureus</i> while in your study you found an activity against this pathogen. try</p>	
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to highlight this positive point of your results, check that it is the first work that report the activity of *Anabaena circinalis* on *Staphylococcus aureus*. This gives originality to your work.

In section results, you determined the content of total phenolic compounds of the *Anabaena circinalis*,

- Precise the purpose of this manipulation and its relation with alga biological activity.
- You didn't discuss results obtained (content of total phenolic compounds of the *Anabaena circinalis*) in discussion section (Every result reported must be discussed).

You may use the following reference: (Antioxidant properties and polyphenolic content in terrestrial cyanobacteria by Dhananjaya P. Singh *et al.* 2017) to discuss your results and the important role of phenolic compounds of cyanobacteria.

-Line 206 to 208: about sentence "Besides,our results showed that the high content of total phenolic compounds in *A. circinalis* were 28.76 ppm"

Please discuss this result in one or two sentences, you may mention that polyphenols is known as antioxidant agents in cyanobacterial species so that *A. circinalis* may also be a promising candidate for production of antioxydant compounds (regarding its high phenol content). This discussion may add value to results obtained in your study.

- Genus and species are always written in italics, whereas sp. should not be italicized

-Line 227 to 229: please delete the sentence" regard that algae is a very interested natural source of new compounds and many of them are antioxidant, antimicrobial and antiviral activities"

- Others comments in section discussion were given please check the text.

#### Conclusions

-At the end of the discussion you may write a conclusion relative to your own finding, highlighting the relevant results obtained and the originality of the work.

#### References:

The references cited support the study however many of them need to be updated. You may also introduce other recent references. Also, format for citation along the text and in the reference list should be reviewed.

#### General reviewer comments

Several comments and corrections were put directly in the text to facilitate the correction by the authors.

In this paper, English is understandable but typographical and grammatical errors must be corrected



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<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments		

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	