

**Review Form 3**

Journal Name:	<a href="#">Journal of Advances in Microbiology</a>
Manuscript Number:	Ms_JAMB_123834
Title of the Manuscript:	<b>Therapeutic assessment of selected natural compounds for topical applications: In vivo toxicity and antifungal approach.</b>
Type of the Article	<b>Original Research Article</b>

## Review Form 3

### PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript presents valuable insights for the scientific community, particularly in the realm of topical antifungal treatments using natural compounds. The study is timely, as fungal infections are increasingly recognized as significant public health challenges. The research demonstrates that compounds such as blue vitriol, brimstone, and alum, among others, can be effective and safe for treating cutaneous candidiasis in vivo. This potential alternative to synthetic drugs is critical, as antifungal resistance and toxicity concerns continue to rise. The histopathological and toxicological evaluations add depth to the findings, providing a comprehensive assessment of safety and efficacy.</p> <p>I appreciate this manuscript because it explores a practical and natural approach to antifungal therapy, which could reduce reliance on conventional antifungals with their associated limitations. However, I would recommend further research to improve the formulations' potency and ensure long-term safety, especially in diverse populations and applications.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title of the manuscript, "Therapeutic assessment of selected natural compounds for topical applications: In vivo toxicity and antifungal approach," is informative but could be more concise and specific. While it highlights the main focus, it could benefit from a clearer emphasis on the key findings and the type of infection treated.</p> <p>An alternative title could be: "In Vivo Antifungal Efficacy and Safety of Natural Compounds for Topical Treatment of Cutaneous Candidiasis"</p> <p>This revision is more direct and emphasizes the primary outcome—antifungal efficacy—while specifying the infection type, making it more accessible and clearer for readers.</p>	
<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract of the manuscript is generally comprehensive, covering key aspects such as the natural compounds tested, the antifungal focus, and the methodologies used for both in vivo toxicity and antifungal activity assessments. It also includes the main findings, such as the decrease in yeast count and the safety profile observed in the Draize' skin irritancy test and histopathological analysis.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The manuscript follows a typical scientific structure, which is generally appropriate for research articles.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript appears to be scientifically robust and technically sound due to its well-structured experimental design and use of established methodologies. The in vivo toxicity and antifungal assessments were conducted using standard techniques, such as the Draize' skin irritancy test, the Murine local lymph node assay (LLNA), and histopathological analyses, which are widely accepted in the field. The results are presented with sufficient detail, supported by clear data on yeast count reduction and histological changes, lending credibility to the findings. Additionally, the use of appropriate controls, including untreated and ketoconazole-treated groups, strengthens the validity of the experimental outcomes. Overall, the combination of relevant natural compounds, rigorous methodology, and comprehensive analysis of results makes the study scientifically reliable.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. =</p>	<p>The references in the manuscript appear to be relevant to the study, but there are a few concerns regarding their sufficiency and recency.</p> <p>The cited references are appropriate for the topics discussed, such as antifungal drug discovery, the challenges of fungal resistance, and the use of natural products in therapeutics. These references support the key points made in the manuscript. While some of the references are relatively recent (2016-2019), others are somewhat outdated, with some dating back to 1996</p>	

**Review Form 3**

	and 1999. Given the fast-paced nature of drug discovery and fungal resistance research, more recent references (post-2018) would strengthen the manuscript. The authors could include more up-to-date references, particularly regarding advances in antifungal therapies, natural compound efficacy, and clinical applications of antifungals.	
Minor REVISION comments  Is the language/English quality of the article suitable for scholarly communications?	The language of the article is generally clear and understandable, but there are several areas where improvements could enhance the quality for scholarly communication.	
Optional/General comments	The study addresses a relevant issue by exploring the use of natural compounds as alternatives for topical antifungal treatments. This is a growing area of interest due to the rise in antifungal resistance, making the research timely and potentially impactful. The manuscript demonstrates a well-thought-out experimental design with clear methodologies, which increases the reliability of the findings. The use of established toxicity tests and histopathological analyses provides a solid foundation for the study. The inclusion of figures and tables presenting the results is useful for visualizing the outcomes. However, some figures could benefit from clearer labeling to improve their interpretability, particularly the histological images. If the efficacy and safety of these natural compounds are confirmed through further studies, this research could contribute to the development of safer, low-cost treatments for fungal infections. This is especially important for regions where access to modern antifungal drugs is limited. Further studies should explore the molecular mechanisms behind the antifungal activity of these natural compounds. Additionally, broader testing in clinical settings would be necessary to assess the compounds' potential for real-world applications.	

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

Name:	Olja Šovljanski
Department, University & Country	University of Novi Sad, Serbia