

Review Form 3

Journal Name:	Annual Research & Review in Biology
Manuscript Number:	Ms_ARRB_121148
Title of the Manuscript:	Antioxidant, anti-inflammatory and cytotoxic properties of Cancerol S, a blend of medicinal plants, on cancerous cells in culture
Type of the Article	Original Research Article

General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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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>
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.		
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Are subsections and structure of the manuscript appropriate?		
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.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. =		

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>	<p>The manuscript investigates the in vitro antioxidant, anti-inflammatory, and cytotoxic properties of Cancerol S, a blend of four medicinal plants from Burkina Faso. Through phytochemical screening, antioxidant assays, enzyme inhibition tests, and cytotoxic evaluations, the study provides insights into the potential therapeutic benefits of this traditional herbal preparation.</p> <p>Strengths</p> <p>1 . Comprehensive Phytochemical Analysis: The study offers a detailed phytochemical profile of Cancerol S, including total polyphenol and flavonoid content, which lays a solid foundation for understanding its bioactive components.</p> <p>2 . Diverse Methodological Approach: The use of various assays such as DPPH, ABTS, FRAP, and enzyme inhibition assays (15-LOX, COX-1, COX-2) to evaluate antioxidant and anti-inflammatory activities ensures a thorough assessment of the plant blend's properties.</p> <p>3 . Cytotoxicity Evaluation: The manuscript includes significant data on the cytotoxic effects of Cancerol S on prostate (DU 145) and cervical (HeLa) cancer cell lines, highlighting its potential as an anticancer agent.</p> <p>4 . Traditional Medicine Context: By focusing on a traditional recipe used in Burkina Faso, the study bridges the gap between traditional knowledge and scientific validation, promoting ethnopharmacological research.</p> <p>Weaknesses</p> <p>1 . Lack of In Vivo Studies: While the in vitro results are promising, the absence of in vivo studies limits the ability to predict the efficacy and safety of Cancerol S in living organisms.</p> <p>2 . Standardization of Plant Material: The manuscript does not thoroughly address the standardization of the plant materials used, which is crucial for reproducibility and consistency in herbal medicine research.</p> <p>3 . Limited Discussion on Mechanisms: The discussion section could be expanded to provide a deeper analysis of the mechanisms underlying the observed antioxidant, anti-inflammatory, and cytotoxic effects.</p> <p>4 . Statistical Analysis: More detailed statistical analysis and explanation of the data would enhance the credibility and reliability of the results.</p> <p>Recommendations</p> <p>1 . Include In Vivo Studies: Future research should incorporate in vivo studies to better understand the pharmacokinetics, bioavailability, and potential toxicity of Cancerol S in animal models.</p> <p>2 . Standardize Plant Extracts: Ensuring the standardization of plant materials and extracts will improve the reliability and reproducibility of the study outcomes.</p> <p>3 Expand Mechanistic Insights: Providing a more detailed discussion on the potential molecular mechanisms behind Cancerol S's bioactivities would strengthen the scientific basis of the study.</p> <p>4 . Enhance Statistical Rigor: Implementing more robust statistical analyses and clearly presenting the results will enhance the study's validity.</p> <p>The following papers can be add to the current research: 1: Zhang, H., Li, G., Han, R., Zhang, R., Ma, X., Wang, M., Shao, S., Yan, M., & Zhao, D. (2021). Antioxidant, Anti-Inflammatory, and Cytotoxic Properties and Chemical Compositions of Filipendula</p>	

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	<p>palmata (Pall.) Maxim. In G. A. Agbor (Ed.), Evidence-Based Complementary and Alternative Medicine (Vol. 2021, pp. 1–12). Hindawi Limited. https://doi.org/10.1155/2021/6659620</p> <p>2: Nave, Op. (2020). Modification of Semi-Analytical Method Applied System of ODE. In Modern Applied Science (Vol. 14, Issue 6, p. 75). Canadian Center of Science and Education. https://doi.org/10.5539/mas.v14n6p75</p> <p>Conclusion</p> <p>The manuscript provides valuable preliminary data on the antioxidant, anti-inflammatory, and cytotoxic properties of Cancerol S, supporting its potential use in traditional medicine for cancer treatment. Addressing the identified weaknesses and incorporating the recommended improvements will significantly enhance the manuscript's impact and contribution to the field of ethnopharmacology and cancer research.</p>	
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PART 2:

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

Reviewer Details:

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