

Review Form 3

Journal Name:	Archives of Current Research International
Manuscript Number:	Ms_ACRI_128230
Title of the Manuscript:	A nanotoxicological approach to the effects of metformin and sodium metavanadate co-encapsulated in polycaprolactone nanoparticles under the biological parameters of zebrafish (Danio rerio)
Type of the Article	Original Research Article

PART 1: 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. 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.		
Is the manuscript scientifically, correct? Please write here.		
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>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>	<p>Manuscript Title: A nanotoxicological approach to the effects of metformin and sodium metavanadate co-encapsulated in polycaprolactone nanoparticles under the biological parameters of zebrafish (Danio rerio)</p> <p>Manuscript Number: Ms_ACRI_128230</p> <p>General Assessment: The manuscript presents a relevant study on the toxicological effects of polycaprolactone (PCL) nanoparticles co-encapsulating metformin and sodium metavanadate using zebrafish embryos. The research addresses an important gap in nanotoxicology, particularly concerning veterinary applications. The methodology is generally sound, adhering to OECD guidelines, and the use of zebrafish as a model organism is appropriate for assessing developmental toxicity.</p> <p>Strengths:</p> <ol style="list-style-type: none">1. Relevance and Innovation: The study explores the combined effects of metformin and sodium metavanadate in PCL nanoparticles, which is novel and pertinent for veterinary medicine.2. Comprehensive Methods: Detailed descriptions of nanoparticle preparation, characterization, and toxicity testing enhance reproducibility.3. Clear Results: The presentation of sublethal and lethal effects, along with heart rate measurements, provides a thorough assessment of toxicity. <p>Areas for Improvement:</p> <ol style="list-style-type: none">1. Introduction Clarity: While comprehensive, the introduction could better highlight the specific rationale for selecting metformin and sodium metavanadate together.2. Data Presentation: Incorporating more quantitative data, such as LC50 values and statistical significance levels in the abstract and results, would strengthen the findings.3. Discussion Depth: The discussion should delve deeper into the mechanisms of observed toxic effects and compare findings with existing literature on similar nanoparticles.4. Figures and Tables: Ensure all figures and tables are clearly labeled and referenced within the text. Including additional visual data representations could enhance understanding.5. Conclusion Enhancement: The conclusion reiterates key findings but should also suggest specific future research directions and potential applications or regulatory implications. <p>Minor Suggestions:</p> <ul style="list-style-type: none">• Proofread for minor grammatical errors and ensure consistency in terminology.• Expand on the ethical considerations and limitations of using zebrafish as a model. <p>Recommendation: Major revisions are recommended to address the clarity, depth of discussion, and comprehensive data presentation. Once revised, the manuscript has the potential to make a significant contribution to the field of nanotoxicology in veterinary medicine.</p>	

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PART 2:

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

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