

### Review Form 3

Journal Name:	<a href="#">Archives of Current Research International</a>
Manuscript Number:	Ms_ACRI_128230
Title of the Manuscript:	<b>A nanotoxicological approach to the effects of metformin and sodium metavanadate co-encapsulated in polycaprolactone nanoparticles under the biological parameters of zebrafish (Danio rerio)</b>
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>
<b>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.</b>	The present manuscript focuses on a potential toxic effect of a novel veterinary Nano medicine composed of metformin and sodium metavanadate. Zebra fish embryos, as a model, were used to trace the effects of these nanoparticles on embryonic and larval development. The study stressed the practical necessity of considering not only the active drugs but also the raw nanoparticle materials which could have their own toxicity. All in all, proper consideration of the purpose for which testing effects are used in veterinary practice ensures Nano medicine safety while emphasizing that it is possible to avoid testing them on animals..	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	Yes.	
<b>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.</b>	<p><b>The abstract is detailed but could be improved with some changes for clarity and brevity, as seen in the following suggestions:</b></p> <p><b>Clarify the key findings:</b> The abstract mentions the effects of metformin, sodium metavanadate, and nanoparticles but could better highlight the main conclusions drawn from the results. For instance, stating that PCL nanoparticles (drug-loaded or plain) caused sublethal and lethal effects, and that loading/drug entrapment did PCLs and PCL concentration being the major factor, would provide a clearer takeaway.</p> <p><b>Language Simplification:</b> Some of the phrases are technically incorrect and should, therefore, be simplified for clarity. For example, "lethal and sublethal effects as pericardial edema," can be rephrased as "sublethal effects, such as pericardial edema."</p> <p><b>Remove details that are not strictly necessary—NE3. Specifics of the OECD guidelines or the names of the nanoparticle formulations (whether PPMV-1, PPMV-2, etc.) need not be so relevant in this section and can be merged.</b></p>	
<b>Is the manuscript scientifically, correct? Please write here.</b>	Yes, the manuscript is scientifically accurate. This design, as well as the use of zebrafish embryos to determine the toxicity of PCL nanoparticles carrying metformin and sodium metavanadate, is within the accepted procedures of toxicological studies. Methods for nanoparticle characterization and statistical analysis are appropriate. But the manuscript could be improved by increased discussion of the mechanisms of the observed toxicity and if these are deemed to be due to the drugs, nanoparticles, or both. A comparison with similar studies would equally help put the numbers in context	
<b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b>		

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<b>Is the language/English quality of the article suitable for scholarly communications?</b>	Minor revisions for sentence structure and grammar would enhance the overall clarity and professionalism of the manuscript.	
<b>Optional/General</b> comments	-	

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

### Reviewer Details:

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