

Review Form 3

Journal Name:	Advances in Research
Manuscript Number:	Ms_AIR_125074
Title of the Manuscript:	Zebrafish: a versatile experimental model for application in toxicological research
Type of the Article	Minireview Article

Review Form 3

PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<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>Good. Publishable. At least this review paper can help researchers to get ideas on toxicology study in animal model.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title is concise and appropriate for the subject matter. However, it could be slightly more specific to reflect the toxicological focus. Consider: "<i>Zebrafish: A Versatile Model Organism for Toxicological Research and Applications</i>". This helps direct the reader's attention to the primary application discussed in the review.</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>a) For me the abstract is too short and too brief. b) The abstract is generally clear but could benefit from a more structured format, especially in differentiating between the zebrafish model's advantages and limitations. c) Consider adding a short mention of specific toxicological applications (like cardiotoxicity or neurotoxicity), as this could give readers a better preview of the discussion. d) The sentence structure is slightly run-on in some places. Breaking longer sentences into shorter, more digestible parts will enhance clarity.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>No issue with subsections. Suggestions for Structural Adjustments: 1. Restructure Results and Discussion: Break down larger sections (like applications in toxicology) into smaller subsections. This will improve the logical flow and readability of the manuscript. 2. Tables/Figures: Consider adding summary tables (e.g., comparing zebrafish to traditional models, listing studies on different types of toxicity) or diagrams (e.g., zebrafish anatomy) to break up large blocks of text. 3. Consistency in Subsection Titles: Ensure consistency in subsection titles. Some are specific ("Cardiotoxicity"), while others are general ("Applications in Toxicology"). Make sure all subsections follow a similar level of specificity to help guide the reader.</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>The manuscript provides a detailed explanation of the biological characteristics of zebrafish, their advantages over traditional models, and their applications in various toxicological domains such as cardiotoxicity, neurotoxicity, and genotoxicity. The authors effectively reference key studies, offering a well-rounded discussion on the subject. Furthermore, the methodology used to select relevant studies is clear, contributing to the credibility of the literature review. The manuscript demonstrates a deep understanding of zebrafish's role in scientific research, ensuring that the findings and conclusions drawn are technically sound.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. :</p>	<p>I would suggest 50-75 for article review. The references in the manuscript are mostly sufficient, but there are a few points that need improvement:</p> <p>A. Recency of References:</p> <ul style="list-style-type: none"> While many references are relatively recent (2020–2024), there are some key citations that are either older or could be updated to reflect current research. For example, reference [4] on nanotoxicology is from 2005, which may not reflect the most recent advances in the field. It's important to include more recent references, particularly for fast-evolving topics like toxicology and zebrafish genetic applications. For a more up-to-date perspective, you should consider citing recent review articles or meta-analyses on zebrafish use in toxicology from the last 3-5 years. <p>B. Sufficiency of References:</p>	

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	<ul style="list-style-type: none"> The manuscript has a strong foundation of references for various sections, but a few areas would benefit from additional citations, especially in the "Applications in Toxicology" section, where there are rapidly evolving fields like neurotoxicity and genotoxicity. There are missing citations (In my opinion, please ignore it was not) for new emerging topics such as CRISPR-based applications and transgenic zebrafish models. These are highly relevant for the discussion on future perspectives and toxicology research. 	
<p><u>Minor REVISION</u> comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Good enough for this publication</p>	
<p><u>Optional/General</u> comments</p>	<p>1. Refining the Abstract</p> <ul style="list-style-type: none"> Current: The abstract is clear but could benefit from a slightly more concise description and emphasis on key findings and implications. Suggestion: Reword the abstract to include a clear problem statement, main findings, and potential future applications of zebrafish. For example, "Zebrafish have emerged as a key model for toxicological studies due to their genetic and anatomical similarities to humans. This review explores their advantages, limitations, and potential in fields such as neurotoxicity, cardiotoxicity, and hepatotoxicity." <p>2. Streamlining the Introduction</p> <ul style="list-style-type: none"> Current: The introduction provides a strong historical overview but could be streamlined to focus more on the relevance of zebrafish in toxicology. Suggestion: Condense the historical context and emphasize the specific relevance of zebrafish in modern toxicology studies earlier. You might reduce some of the background information that is repeated in other sections. <p>3. Clarify Methodology</p> <ul style="list-style-type: none"> Current: The methodology section is well-organized, but it lacks some important details about how the selected papers were analyzed. GOOD <p>4. Structure of Results and Discussion</p> <ul style="list-style-type: none"> Current: The Results and Discussion section provides good insights but can be broken into sub-sections for better clarity. Suggestion: Introduce clear subheadings within the results for different types of toxicology (e.g., Neurotoxicity, Cardiotoxicity) to make it easier for readers to follow specific applications. Additionally, emphasize key findings in each sub-section. Add tables or diagrams in RESULT <p>5. Use of Citations</p> <ul style="list-style-type: none"> Current: Some citations are very recent, which is great, but more high-impact sources could be used to reinforce key points. GOOD <p>6. Consistency in Terminology</p> <ul style="list-style-type: none"> Current: There are some inconsistencies in the use of terms like "Zebrafish" vs. "Danio rerio." Suggestion: Use consistent terminology throughout the paper. Choose one term (e.g., "Zebrafish") and stick with it, except when using the scientific name for the first time in a section. CHECK on this <p>7. Enhancing the Conclusion</p> <ul style="list-style-type: none"> Current: The conclusion is a bit short and could benefit from a clearer emphasis on future directions. Suggestion: Expand the conclusion to include potential future research areas and how zebrafish models could evolve with new technologies (e.g., CRISPR, imaging technologies). This will provide readers with a forward-looking perspective. 	

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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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