Review Form 3

Journal Name:	**Asian Journal of Biology**
Manuscript Number:	**Ms_AJOB_131146**
Title of the Manuscript:	**DNA Damage in Zebrafish Induced by Low-Frequency Electromagnetic Fields: Insights from Comet Assay**
Type of the Article	**Original Research Article**

PART 1: Comments

	Reviewer's comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.**	**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)*
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.	This manuscript presents an important investigation into the genotoxic effects of low-frequency electromagnetic fields (LF-EMFs) on zebrafish DNA using the **Comet Assay**. The study is relevant in the context of increasing environmental EMF exposure and provides valuable insights into potential genetic damage. The use of zebrafish as a model organism and the rigorous methodology strengthen the study's credibility. However, some improvements are required to enhance the manuscript's clarity, scientific rigor, and presentation. Below are specific suggestions:	
Is the title of the article suitable? **(If not please suggest an alternative title)**	The title is appropriate and accurately reflects the study. No changes are required.	

Review Form 3

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.	The **abstract is too general** and lacks a mechanistic explanation of how LF-EMFs induce DNA damage.	
Is the manuscript scientifically, correct? Please write here.	The manuscript is scientifically valid, but improvements are needed: • **Graphs and statistical representation**: The graphs should be created using standard statistical software such as **GraphPad Prism or Origin** to ensure accuracy. • **Significance values** should be **uniformly presented as p < 0.01, p < 0.001, or p < 0.05, check the mentioned paper below.** • When mentioning statistical significance in the text, **state the exact p-value for clarity.** Consider **adding a systematic mechanism** to describe potential apoptosis pathways using references such as: • **Kumar et al., 2024** - *Mitochondrial-mediated apoptosis as a therapeutic target for FNC-induced inhibition of Dalton's lymphoma growth* (*Discover Oncology, 15(1), 16*). • **Singh et al., 2022** - *PKCα inhibition in Dalton's Lymphoma cells augments cell cycle arrest and mitochondrial-dependent apoptosis* (*Leukemia Research, 113, 106772*).	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references are sufficient, but add some more recent studies.	

Review Form 3

Is the language/English quality of the article suitable for scholarly communications?	The manuscript has grammatical errors and inconsistent spacing throughout. A thorough proofreading is required to enhance readability and ensure a formal scientific tone.	
Optional/General comments	**Figure and Citation Issues** • Some **figure numbers are misising**. • Ensure **all figures are cited in the text correctly** and in sequential order. • **Figure legends need to be rewritten** for clarity and should include **full statistical details**. **7. Statistical Analysis and Figures** • **Figures should include clear significance markers** (*, **, ***, letters such as a, b) to indicate comparisons with control groups. See format in:** o . • **Concentration units** (e.g., µM, mg/mL) should be clearly stated for all experimental conditions. • **Ensure high-resolution images** are used—avoid Word compression features. **8. Conclusion Improvement** • The conclusion is **too short** and should be **expanded** to summarize key findings, implications, and future research directions. **9. Systematic Mechanism Discussion** • The study should include a **more detailed hypothesis** regarding **how LF-EMFs might induce DNA damage via apoptosis mechanisms**. • Use Singh, R. K., Verma, P. K., Kumar, S., Shukla, A., Kumar, N., Kumar, S., & Acharya, A. (2022). Evidence that PKCα inhibition in Dalton's Lymphoma cells augments cell cycle arrest and mitochondrial-dependent apoptosis. Leukemia Research, 113, 106772. to discuss **potential mitochondrial involvement**.	

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?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	**Naveen Kumar**
Department, University & Country	**Raffles University, India**