**Reviewer**

Comment: Many grammatical errors in the manuscript

Response: These have been corrected. The background of the abstract has been rewritten.

Comment: - References need updating

Response: Several recent references have been added

Comment: Uniform abbreviations and full names for the first time.

Response: Full names of abbreviations were provided, and repetitions were removed.

Comment: Page numbers were missing.

Response: Page numbers inserted

Comment: Suggested change of Title

Response: Title was changed to *“Gene expression and histopathological analysis of the effect of Allium cepa on carbon tetrachloride (CCl4)-induced Anti-Hepatic steatosis in Wister rats”.*

Comment: Reference 7 is outdated

Response: - Reference 7 has been replaced with a more recent one

Comment: - No biochemical markers were studied in the manuscript. This allows us to ask why we didn't perform liver enzymes.

Response: The phrase has been removed. Biochemical markers were published in another article.

Comment: the authors stated that "Recent epidemiology provided evidence showing that NAFLD has become the second largest liver disease after viral hepatitis, with an incidence of 20–30%, and the incidence of obesity in the population is up to 57.74% (Zhong et al,2020)". the authors didn't mention the locality (e.g. Worldwide, Western, Eastern, and which population the meant. Also, by revising the reference, Zhong et al. (2020 was a review of experimental models of NAFLD and not an epidemiological study. Please refer to the original study.

Response: Sentence reconstructed.

Comment: - "The experimental protocols were reviewed and approved by the Adekunle Ajasin University Animal Ethics Committee". This sentence is repeated twice.

Response: Repetition deleted.

Comment: - Onion extract and raw onion preparation need a suitable reference.

Response: Reference provided

Comment: Please provide the serial number and ethical committee approval date, which are missing. Response: The ethical committee approval form, which should have contained the serial number and date, was not given.

Comment: In Table 1 of primers, please mention the accession number of genes or suitable references. Also, the names of primers in rats are written in small letters, except for the first letter, which is capitalized.

Response: Gene ID has been added, and the right lettering applied

Comment: The title of Table 1 is unsuitable; it refers to a primer sequence of the studied genes, not gene expression analysis.

Response: Title of table 1 has been changed to “Gene expression analysis by RT-PCR to Primer sequences of the studied genes by RT-PCR”

Comment: Further explanation of molecular methodology (steps, used kits, and instruments)

Response: Further explanation provided

Comment: The results and discussion were merged.

Response: The results and discussion have been separated.

Comment: List of Figures

Response: List of Figures provided

Comment: Were the extracts used prophylactic or therapeutic? According to the literature, the model takes 8 weeks, while you administer the treatment after 5 weeks only.

Response: The extracts were administered for therapeutic purposes. While previous studies typically conducted inductions over a 3–4-week period, we opted to extend our induction phase to ensure significant hepatic impact. During this period, we observed weight loss and weakness among the subjects, and some rats did not survive the induction and treatment phases.

Comment: The Declaration of Helsinki is used for human research, not animal research. Please correct it.

Response: Guidelines developed by the Institute for Laboratory Animal Research (ILAR).

Comment: I struggled to understand the treatment in groups 6 and 7. What was meant by ratios and ratios of what? I need further explanation.

Response: Raw onion bulb mixed with feed (ratio 30/70). Raw onion bulb mixed with feed (ratio 70/30).

Comment: Accompanied by numbers at the end of each sentence (refer to what?)

Response: I think the reviewer is referring to the in-text reference.

Comment: Add scale bar to figures.

Response: The gene expression figures have scale bars ranging from 0.0 to 2.5.

Comment: For comparison figures, it's better to represent figures of all groups at the same magnification (e.g., group 2 needs x100).

Response: The different magnifications (100 and 400) were used to provide a clearer view of the architectural distortion of the liver cells. For better accuracy, x400 can be used for comparison.

Comment: I think this dose can lead to more severe liver disease.

Response: Different doses were tried before the use of 0.5ml was concluded, which seems suitable, as evident in the histopathology examination.

Comment: Regarding the gel image, in Figure 1, lane 2 (representing onion control) and lane 5(representing 200mg extract) show a lower density band, while the graph shows a similar expression to the standard control.

Response: The weaker bands in Lane 2 and Lane 5 may be due to loading inconsistencies, gel transfer issues, or image exposure effects. The bar graph is based on quantitative densitometry, which normalizes AFP expression to Actin-β, potentially leading to a different visual representation.

Comment: The preparation of CCL4 (solvent, e.g., olive oil) and dosage need further details and a suitable reference. CCL4 can be used to induce multiple liver diseases and even lung diseases.

Response: More details and references provided.

**Editor comments**

Comment: Please check the authors' names and affiliations included on your Title Page, mainly to ensure that the spelling of all authors' names is correct. They are cited in the order you wish to appear in the final article. In addition, each author's affiliation details are correct.

Response: Done

Comment: Please include a 'Structured Abstract': not more than 250 words, broken down into, i.e., Aims, Patients & Methods/Materials & Methods, Results, and Conclusions.

Response: Abstract, well-structured

Comment: Include up to 10 keywords in your revised manuscript (including the four keywords you selected as part of the submission process).

Response: More keywords included

Comments: References should be numerically listed in the reference section in the order they occur in the text.

Response: Done

Comments: References should appear as a number, i.e., [1, 2] in the text.

Response: Done

Comments: References should cite three authors et al.: It is our house style to list a maximum of six authors and, if there are more than this, three authors et al.

Response: References have been formatted

Comments: Please ensure all tables and boxes are titled and cited in the text. Three-line tables are preferred.

Response: Tables are well formatted and cited in the text

Comment: Please check the PDF file of your manuscript regarding plagiarism checking.

Response: A plagiarism check was performed, and the similarity score was within an acceptable range.

Comments: Please add the scale bar, annotations, magnifications, and the program that generated these figures. It is also better to submit figures with high resolution and brightness.

Response: Figures well annotated. Magnification values of Figures 5-11 added