

Dear editor,

Thank you very much for your letter and advice.

We have revised the manuscript, which we would like to submit for your consideration for publication. We have addressed the comments raised by the reviewer, and the changes are highlighted in red in the revised manuscript. Point-by-point responses to the reviewers' comments are provided below this letter.

We hope that the revised version of the manuscript is now acceptable for publication in your journal.

We look forward to hearing from you soon.

Yours sincerely,

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## Response to Reviewers

Reviewer 1

The author summarizes the application of artificial intelligence to diagnose a variety of tumors. This is an interesting study. The author's research is very meaningful, but the entire manuscript needs to be further improved. My comments are given below:

1. In page 3, Abstract. I feel that, authors should describe (i) background, (ii) methods and (iii) results.

**Response: Thank you for valuable comments. The abstract has been modified and marked in red in the revised manuscript.**

2. In Core tip. I am sorry, I cannot understand what "clinical performance parameters" means. It means the performance of model or the parameters of AI models or the metric of performance?

**Response: Thank you for your helpful suggestion. The Core tip has been modified and marked in red in the revised manuscript.**

3. In Core tip. The last sentence, please pay attention to the logic of the description.

**Response: Thank you for your helpful suggestion. The Core tip has been modified and marked in red in the revised manuscript.**

4. Introduction, the authors should describe the background, significance, and the propose of this manuscript.

**Response: Thank you for careful comments. The introduction has been modified and marked in red in the revised manuscript.**

5. Since the author's purpose is to summarize the application of artificial intelligence in the diagnosis of tumors, authors should introduce the basic structure of each artificial intelligence model while introducing different work performances. So that readers can have a clearer understanding of the current research progress. Therefore, please consider carefully reorganizing the entire manuscript.

**Response: Thank you for valuable suggestion. The relevant contents were added in the revised manuscript. All the changes have been marked in red.**

6. It is recommended to add a meta table at the end of each section (such as "APPLICATION OF AI IN GASTROINTESTINAL TUMORS" et al.). Like this, Author Year Diseases Data Type Data size Model Performance.

**Response: Thank you for careful comments. Table 1 was added in revised manuscript.**

7. In page4, Introduction, authors show that “Here, we highlight the greatest advantage of AI (efficient diagnostic performance with high sensitivity and specificity)”. But I found that some of the work presented by the author did not describe the sensitivity and specificity. Therefore, it is recommended to carefully revise the overall statement of the paper to make the expression of the manuscript more accurate. The language polish certificate has been provided, but what needs to be improved is not the language but the accuracy of expression.

**Response: Thank you for the helpful comment. The sentence has been amended and marked in red in the revised manuscript.**

8. The author needs to consider how to make the expression not ambiguous. Such as, in page 13, “In pancreas CT, iUnet provides a better detection baseline than iFCN ( $78.1\% \pm 8.7\%$  vs  $72.3\% \pm 11.4\%$ )”. What is the  $78.1\% \pm 8.7\%$  mean? It means accuracy, precision, AUC, or other metrics?

**Response: Thank you for the helpful comment. The contents have been added and marked in red in the revised manuscript.**

9. Conclusion may need to be improved. Please discuss the advantages and disadvantages of AI diagnosis of tumors in detail. For example, why AI may have broader prospects? Why it is difficult for AI to get a lot of data. At the same time, some opinion should be support by reference, in review paper. Such as, who find that the AI model having false-positive phenomenon.

**Response: Thank you for valuable suggestion. We have re-organized the Conclusion to better highlight our understanding of the advantages and disadvantages of AI-assisted imaging technique in clinical practice.**