# For article :bioengineering-2944109

# Response to Reviewer 1 Comments

**1. Summary**

Thank you for taking time out of your busy schedule to review the manuscript we submitted and put forward valuable comments. I made some changes to the manuscript, and marked the changed part in the manuscript with yellow, which can be more convenient to view. Listen to your words, better than ten years of reading books, after this improvement, our manuscript looks more orderly structure, more compact content.

| **2. Questions for General Evaluation** | **Reviewer's Evaluation** | **Response and Revisions** |
|---|---|---|
| Does the introduction provide sufficient background and include all relevant references? | Yes | Thank you for your affirmation |
| Are all the cited references relevant to the research? | Yes | Thank you for your affirmation |
| Is the research design appropriate? | Can be improved | Thanks for your comments, I have made improvements |
| Are the methods adequately described? | Can be improved | Thanks for your comments, I have made improvements |
| Are the results clearly presented? | Can be improved | Thanks for your comments, I have made improvements |
| Are the conclusions supported by the results? | Can be improved | Thanks for your comments, I have made improvements |

**3. Point-by-point response to Comments and Suggestions for Authors**

**Comments 1: Please, show more examples of correct and incorrect segmentation.**

**Response 1**: *[Type your response here and mark your revisions in red] Thank you for your valuable advice. I have added Fig 7 to the manuscript to show more examples.*

**Comments 2: Why did you refuse to use an augmentation?**

**Response 2:** Thank you for your valuable advice. We used data enhancement techniques, but they were not reflected in the manuscript in detail. Deficiencies have been found and

supplemented in the latest manuscript.

*[We refer to the description and processing method of this data set by Ali et al.[33], and finally decide to use one of the data enhancement methods of random HueSaturationValue, RandomBrightness and RandomContrast for our dataset.]*

**Comments 3: More detailed analysis should be provided to explain why the proposed model showed the best results.**

**Response 3:** Thank you for your valuable advice. Because our model is no worse than other advanced models in the accuracy of segmentation, and we have the smallest number of parameters, greatly reducing the dependence on the hardware environment. We have also gone into more detail in the Results analysis section to explain why our model is the best of many.

**Comments 4: Please preview the results of other authors on the datasets used or in similar tasks. This is necessary to understand the state-of-the-art accuracy in this problem.**

**Response 4:** Thank you for your valuable advice. We only cited two of the latest models before, after reading your suggestions, we added a piece of the latest model for comparison, and our results are still excellent.

**Comments 5: How can the model be used if a melanoma is not localized (does not occupy most of the image area and is not located in the center)?**

**Response 5:** Thank you for your valuable advice. To solve this problem, we use the attention mechanism in our model, which can better focus on the information characteristics of the lesion region, and can solve the problem that the lesion is not in the middle of the picture.