Response:

Dear editor Lian-Sheng Ma, thank you very much for providing us with detailed suggestions and comments. In addition, we are very grateful to the anonymous reviewers for their careful review and constructive comments on our revised manuscript!

We are giving the detailed responses to the reviewers and the editor below. Also, we would like to consider World Journal of Gastroenterology as a means of publication of our work.

Reviewer #1:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: This manuscript develops and compares a predictive model of thalidomide-induced peripheral neuropathy using machine learning based on comprehensive clinical and genetic variables. The paper is well-written and presented. Five predictive models are established and evaluated by the confusion matrix receiver operating characteristic curve, the area under the precision-recall curve, specificity, sensitivity, precision, accuracy, and F1 score. The retrospective cohort of 164 Crohn's disease patients from January 2016 to June 2022 was used to establish the model. Therefore, I have a few concerns:

1. In the abstract, the authors need to clarify how their model performance compares to state-of-the-art and how it goes beyond the state-of-the-art methods.
2. The reference list is insufficient, and they are not current. There are no references in the last 3 years.

Response:

Thank you very much for reminding us of improving this paper! I will address and provide feedback on each of the issues raised.

1. As your comment suggested, In the abstract, we have clarified how our model performance compares to state-of-the-art from the perspectives of stability and accuracy. Furthermore, we are also discussing the addition of relevant content in our fourth paragraph of the discussion section and comparing our model's performance with those of the two most recent studies in the field.
2. Thank you for your suggestion, we have bolstered our reference section by adding five recent papers from the past three years, enhancing the persuasiveness of our supporting evidence.

Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors:

1. How long were patients followed for after starting thalidomide? Please include this under patient selection.
2. Figure 3, presenting only pts with TiPN would be less confusing.
3. Figure 4, more information is needed to contextualize the information presented. It is not clear what is being measured and compared here. Please elaborate by including any relevant information.
4. It would be good to compare the results of this study with similar studies of TiPN in other patient populations in Discussion. This comparison will have important clinical implications and should be considered.

Response

Thank you very much for your careful review and comments! I will address each of the issues raised and provide my feedback

1. The median duration of thalidomide treatment was 17.2 months, with a range of 1-60 months. We have included this information under the patient selection section.
2. Thank you for your valuable feedback. We have taken it into consideration and made the necessary revisions to the description of Figure 3, which now presents only patients with TiPN.
3. Thank you for your highly effective suggestions. We have augmented the information in Figure 4 with supplementary details to elaborate on the content of our findings, elucidating the linkage between our outcomes and those derived from established authoritative databases. To enhance readers' comprehension, we have furnished comprehensive explanations in our third part of the results section
4. Thank you for your suggestion. While we have not found any studies on the association between IL-12 and BDNF gene polymorphisms and TiPN in European or American populations, we have analyzed the existing data and compared the mutation frequencies at these loci between Chinese and European/American populations. The results show significant differences between the Chinese and European/American populations, suggesting that our findings have great potential for application in Asian populations. We have provided detailed explanations of these analyses in the seventh paragraph of the discussion section.