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21st April 2021

Professor Subrata Ghosh
Professor Andrzej S Tarnawski
Editors-in-Chief, World Journal of Gastroenterology

Dear Editors,

Thank you for conditionally accepting our manuscript "*Deep learning vs conventional learning algorithms for clinical prediction in Crohn's disease: A proof-of-concept study*" for consideration of publication in the World Journal of Gastroenterology.

Reviewer #1:

Scientific Quality: Grade B (Very good)

Language Quality: Grade A (Priority publishing)

Conclusion: Minor revision

Specific Comments to Authors: This is a proof-of-concept study that proves the feasibility of deep learning algorithms for clinical prediction in Crohn's disease (CD). Despite the limitations of poor clinical practicality, deep learning algorithms is worth looking forward to. The writing of this article is very good. A less important issue is that the proportion of male was 46% in the abstract section, but it seems that it should be 48% according to the results section. I believe this manuscript is worth publishing after minor revisions.

Response: *Thank you, the correct proportion is 48%, and the typo in the abstract has been corrected.*

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: This is the first study to use an artificial neural network to predict response to anti-TNF therapy in Crohn's disease. This manuscript seems to be worth to be published after several minor modifications. 1. It is suggested that the authors estimate the sample size for the number of patients included in the study. 2. It is suggested that authors discuss more about artificial intelligence in predicting response to anti-TNF therapy in other diseases.

Response: *Thank you, we have estimated the sample size (last paragraph on page 10 under Methods). We have also described two recently studies in other chronic autoimmune conditions (second paragraph on page 16). We acknowledge that machine learning has been evaluated in predicting response to anti-*

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TNF in rheumatoid arthritis, but a recurrent neural network with repeated data specifically has not been applied before.

Science editor:

1 Scientific quality: The manuscript describes a observational study of the deep learning vs conventional learning algorithms for clinical prediction in Crohn's disease. The topic is within the scope of the WJG. (1) Classification: Grade B and Grade C; (2) Summary of the Peer-Review Report: The authors reported a proof-of-concept study that proves the feasibility of deep learning algorithms for clinical prediction in Crohn's disease. However, the questions raised by the reviewers should be answered; and (3) Format: There are 3 tables and 3 figures. (4) References: A total of 42 references are cited, including 25 references published in the last 3 years; (5) Self-cited references: There are no self-cited references; and (6) References recommend: The authors have the right to refuse to cite improper references recommended by peer reviewer(s), especially the references published by the peer reviewer(s) themselves. If the authors found the peer reviewer(s) request the authors to cite improper references published by themselves, please send the peer reviewer's ID number to the editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately.

Response: Thank you, we have addressed the peer-reviewer queries above.

2 Language evaluation: Classification: Grade B and Grade A. 3 Academic norms and rules: The authors provided the Biostatistics Review Certificate, and the Institutional Review Board Approval Form. The STROBE Statement need to add the page number. No academic misconduct was found in the Bing search. 4 Supplementary comments: This is an invited manuscript. No financial support was obtained for the study. The topic has not previously been published in the WJG. 5 Issues raised: (1) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; (2) PMID and DOI numbers are missing in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout; and (3) The "Article Highlights" section is missing. Please add the "Article Highlights" section at the end of the main text. 6 Recommendation: Conditional acceptance.

Response: Thank you, the STROBE statement has been updated with page numbers. We have also provided graphs in PowerPoint form; PMID and DOI are included in references now with full author list; "Article Highlights" has been included.

Company editor-in-chief: I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Gastroenterology, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors.

Response: Thank you.

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Yours sincerely,

Dr Danny Con
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