

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 80441

**Title:** Artificial Intelligence and Inflammatory Bowel Disease: where are we going?

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05789838

**Position:** Editorial Board

**Academic degree:** PhD

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** Italy

**Manuscript submission date:** 2022-09-27

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-09-28 01:37

**Reviewer performed review:** 2022-10-02 07:42

**Review time:** 4 Days and 6 Hours

|                                   |  |
|-----------------------------------|--|
| <b>Scientific quality</b>         | <input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good<br><input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish   |
| <b>Judgment by peer reviewers</b> | Does this manuscript meet the code of ethics standards?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important novelty?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important creativity or innovation?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript use reliable research methods? |

|                                 |   |
|---------------------------------|---|
|                                 | <input checked="" type="checkbox"/> [41] Yes <input type="checkbox"/> [40] No<br>Are the manuscript-accompanying data and figures authentic?<br><input checked="" type="checkbox"/> [51] Yes <input type="checkbox"/> [50] No<br>Does this manuscript make scientifically significant conclusions?<br><input checked="" type="checkbox"/> [61] Yes <input type="checkbox"/> [60] No |
| <b>Language quality</b>         | <input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing<br><input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection   |
| <b>Conclusion</b>               | <input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority)<br><input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection   |
| <b>Re-review</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   |
| <b>Peer-reviewer statements</b> | Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous<br>Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |

## SPECIFIC COMMENTS TO AUTHORS

The purpose of this review is to summarize the latest and important scientific findings regarding the application of AI in inflammatory bowel disease and to provide an outlook on the current state. I consider this review to be of great interest. Overall, this manuscript is written in a relatively fluid and focused style. I think this manuscript could be improved in the following three areas. First, the authors should add some background knowledge and describe how this review differs from existing reviews. Second, the review lacks a research limitations section. Third, the research outlook section of this review is a highlight. The authors should expand the research outlook section appropriately and make a bold speculation about the future direction of research in this field.

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 80441

**Title:** Artificial Intelligence and Inflammatory Bowel Disease: where are we going?

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 03580207

**Position:** Editorial Board

**Academic degree:** PhD

**Professional title:** Associate Chief Physician

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** Italy

**Manuscript submission date:** 2022-09-27

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-10-11 01:21

**Reviewer performed review:** 2022-10-15 00:23

**Review time:** 3 Days and 23 Hours

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|-----------------------------------|--|
| <b>Scientific quality</b>         | <input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good<br><input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish   |
| <b>Judgment by peer reviewers</b> | Does this manuscript meet the code of ethics standards?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important novelty?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important creativity or innovation?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript use reliable research methods? |

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|                                 | <input type="checkbox"/> [41] Yes <input type="checkbox"/> [40] No<br>Are the manuscript-accompanying data and figures authentic?<br><input type="checkbox"/> [51] Yes <input type="checkbox"/> [50] No<br>Does this manuscript make scientifically significant conclusions?<br><input type="checkbox"/> [61] Yes <input type="checkbox"/> [60] No |
| <b>Language quality</b>         | <input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing<br><input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection  |
| <b>Conclusion</b>               | <input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority)<br><input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection  |
| <b>Re-review</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  |
| <b>Peer-reviewer statements</b> | Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous<br>Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |

## SPECIFIC COMMENTS TO AUTHORS

It is suggested that the authors improve the application of pathological artificial intelligence in inflammatory bowel disease (doi: 10.1038/s41591-019-0508-1.) and the contents of the detection of IBD-related CRC by endoangel ( doi: 10.1016/S2468-1253(19)30413-3. )

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**Manuscript NO:** 80441

**Title:** Artificial Intelligence and Inflammatory Bowel Disease: where are we going?

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 06120768

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Associate Professor, Associate Research Scientist

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** Italy

**Manuscript submission date:** 2022-09-27

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-10-11 04:31

**Reviewer performed review:** 2022-10-20 02:56

**Review time:** 8 Days and 22 Hours

|                                   |  |
|-----------------------------------|--|
| <b>Scientific quality</b>         | <input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good<br><input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish   |
| <b>Judgment by peer reviewers</b> | Does this manuscript meet the code of ethics standards?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important novelty?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important creativity or innovation?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript use reliable research methods? |

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| <b>Language quality</b>         | <input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing<br><input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection  |
| <b>Conclusion</b>               | <input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority)<br><input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection  |
| <b>Re-review</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  |
| <b>Peer-reviewer statements</b> | Peer-Review: <input type="checkbox"/> Anonymous <input checked="" type="checkbox"/> Onymous<br>Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |

## SPECIFIC COMMENTS TO AUTHORS

This manuscript briefly reviews the role of AI in the field of IBD and focuses primarily on the important literature in the field. I believe this manuscript could be considered for publication with minor revisions. The following issues need to be considered. 1, IBD-related studies based on AI are gradually increasing. It is suggested that a bibliometric tool be used to generate a figure to illustrate this trend. 2, The literature on AI and IBD-related literature is quite large. Therefore the authors need to explain the criteria for inclusion of the literature listed in Table 2. 3, AI can be used not only in clinical settings, but also in preclinical aspects and drug discovery in IBD. It is suggested to add a chapter describing this. (doi: 10.1038/s42003-021-01822-x) 4, How should development resources be conserved to increase the rate of repeat application of IBD models in the context of the increasing number of models? How can different models with similar purposes be evaluated and selected? How to increase the transparency of IBD-related AI model algorithms? These questions are proposed to be mentioned in the



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future of AI in IBD. (doi: 10.3748/wjg.v27.i38.6476)