

PEER-REVIEW REPORT

Name of journal: *Artificial Intelligence in Gastroenterology*

Manuscript NO: 74644

Title: Machine learning approaches using blood biomarkers in non-alcoholic fatty liver diseases: a mini-review

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05572950

Position: Peer Reviewer

Academic degree: PhD

Professional title: Doctor, Reader (Associate Professor), Teacher

Reviewer's Country/Territory: India

Author's Country/Territory: Brazil

Manuscript submission date: 2021-12-31

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-30 04:17

Reviewer performed review: 2022-01-30 04:21

Review time: 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



**Baishideng
Publishing
Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-399-1568
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

Peer-reviewer statements	Peer-Review: [<input checked="" type="checkbox"/>] Anonymous [<input type="checkbox"/>] Onymous Conflicts-of-Interest: [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No
-------------------------------------	---

SPECIFIC COMMENTS TO AUTHORS

1. The authors can compare the current review with recent reviews and state the novelty of this review. 2. A section, challenges, open issues and future directions can be added.

AUTHORS' RESPONSE.

We thank you for this kind comment. We included a comparison with recent reviews and included a section regarding future directions in the manuscript. Best regards.

PEER-REVIEW REPORT

Name of journal: *Artificial Intelligence in Gastroenterology*

Manuscript NO: 74644

Title: Machine learning approaches using blood biomarkers in non-alcoholic fatty liver diseases: a mini-review

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03737783

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Assistant Professor, Lecturer

Reviewer's Country/Territory: Italy

Author's Country/Territory: Brazil

Manuscript submission date: 2021-12-31

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2022-02-09 09:09

Reviewer performed review: 2022-02-24 03:19

Review time: 14 Days and 18 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input checked="" type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input checked="" type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="checkbox"/>] Anonymous [<input type="checkbox"/>] Onymous Conflicts-of-Interest: [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No
-------------------------------------	---

SPECIFIC COMMENTS TO AUTHORS

Dear Editor, Carteri et al wrote a mini-review on a hypothetically interesting topic in the field of hepatology: machine learning approaches on NAFLD diagnosis. However their aims were not fulfilled by the resulting paper. The data presented are scarce and incomplete and the paper is too brief. Also there are several typos and the english has to be reviewed. You can find more details in the comments provided with the copy of the manuscript attached to this review.

AUTHORS' RESPONSE.

We thank you for your kind comment. We provided a mini-review using several of the published papers according to our goal, which was to discuss the application of using a biomarker approach with biomarkers to support NAFLD diagnosis, disease risks, and risk of progression to NASH. The data provided is not incomplete, as we described and compared the algorithms used in different studies, and pointed out the strengths and weaknesses of the cited studies.

To provide a satisfactory modification based on your comments, we improved several aspects and expanded the manuscript, as follows: a) we revised, made substantial changes, and rewrote (when appropriate) all the sections of the manuscript b) we expanded our description and definitions on artificial intelligence and machine learning, and also expanded the biomarker section; c) we included a new section: "challenges, open issues, and future directions". We thank you again for all the observations, and we addressed them all when revising the manuscript. Overall, all suggestions improved the manuscript quality, and we thank you for all your comments.

PEER-REVIEW REPORT

Name of journal: *Artificial Intelligence in Gastroenterology*

Manuscript NO: 74644

Title: Machine learning approaches using blood biomarkers in non-alcoholic fatty liver diseases: a mini-review

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05769197

Position: Peer Reviewer

Academic degree: MSc, PhD

Professional title: Professor

Reviewer's Country/Territory: Germany

Author's Country/Territory: Brazil

Manuscript submission date: 2021-12-31

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2022-03-02 07:43

Reviewer performed review: 2022-03-11 04:55

Review time: 8 Days and 21 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="checkbox"/>] Anonymous [<input type="checkbox"/>] Onymous Conflicts-of-Interest: [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No
-------------------------------------	---

SPECIFIC COMMENTS TO AUTHORS

The manuscript "Machine learning approaches using blood biomarkers in non-alcoholic fatty liver diseases: a mini-review." is well written and introduces AI methods to predict stages of fatty liver diseases. ML becomes more important in clinical practice and could be serve a precision tool in the prediction of disease severity. The authors give a short overview of fatty liver diseases and introduce briefly in ML. They highlight the importance and new approaches of ML in fatty liver diseases. Finally, the authors also underline the limitations of current knowledge and the importance for further research in this field. There are no major or minor comments to the authors.

AUTHORS' RESPONSE.

We thank you for this kind comment. We included a comparison with recent reviews and included a section regarding future directions in the manuscript. Best regards.

PEER-REVIEW REPORT

Name of journal: *Artificial Intelligence in Gastroenterology*

Manuscript NO: 74644

Title: Machine learning approaches using blood biomarkers in non-alcoholic fatty liver diseases: a mini-review

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03434021

Position: Editorial Board

Academic degree: MD

Professional title: Associate Professor

Reviewer's Country/Territory: Turkey

Author's Country/Territory: Brazil

Manuscript submission date: 2021-12-31

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2022-03-02 19:27

Reviewer performed review: 2022-03-12 20:36

Review time: 10 Days and 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



**Baishideng
Publishing
Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-399-1568
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

Peer-reviewer statements	Peer-Review: [<input checked="" type="checkbox"/>] Anonymous [<input type="checkbox"/>] Onymous Conflicts-of-Interest: [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No
-------------------------------------	---

SPECIFIC COMMENTS TO AUTHORS

The authors evaluated the efficacy of using artificial intelligence in a common disease such as nafld in the manuscript entitled "' Machine learning approaches using blood biomarkers in non-alcoholic fatty liver diseases: a mini-review". Although this study is short, its subject has been chosen well and I think that it has the capacity to guide future studies on this subject. It is well written and and contains correct expressions. But in source 22, is it canbay or cambay? I think it needs clarification. In the text Cambay but in the references Canbay. After few spelling mistakes I recommend that it could be accepted for publication. Best regards.

AUTHORS' RESPONSE.

We thank you for your kind comment. We corrected it in the text, is Canbay et al..



**Baishideng
Publishing
Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-399-1568
E-mail: bpgoffice@wjgnet.com
<https://www.wjgnet.com>

AUTHORS' GENERAL COMMENT.

We were delighted by the reviewer's comments which helped to dramatically improve our manuscript. In brief, in addition to revising the text and addressing all specific concerns, substantial changes in all sections of the manuscript were made, in accordance to all suggestions. All changes made in the text are in red in the revised manuscript file. No changes were made in the tables.

We sincerely thank you for your time and insightful comments on our manuscript and we have modified it to address all concerns. We believe that all comments have elevated the quality of our manuscript significantly and we hope you will be satisfied with our amendments.

Yours sincerely,

Sabrina Alves Fernandes

E-mail: sabrinaafernandes@gmail.com

Postgraduate Program in Hepatology,

Federal University of Health Sciences of Porto Alegre (UFCSPA)

Porto Alegre 90050-170, RS, Brazil