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PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 76325

Title: X7 receptor as the regulator of T-cell function in intestinal barrier disruption

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 02569794
Position: Editorial Board
Academic degree: MD, PhD
Professional title: Associate Professor
Reviewer's Country/Territory: Thailand
Author's Country/Territory: China

Manuscript submission date: 2022-03-12

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-03-18 10:47

Reviewer performed review: 2022-03-21 06:27

Review time: 2 Days and 19 Hours

Scientific quality	[Y] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer	Peer-Review: [Y] Anonymous [ ] Onymous

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statements	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This review manuscript about P2X7 receptor involved in immune cell function including T cell and DCs in inflammation of the intestine. I is a good review with the introduction of the P2X7 receptor function and the intestinal inflammation. I have some major concerns as follows: 1.Since this review proposed about P2X7R as the potential target for treatment of inflammation of the intestine, the authors generally should review and discuss about the intracellular signaling pathway, perhaps for example, about the MAPK, ERK1/2, and other signaling molecules of the T cell known to date that are associated with the function of P2X7R. This is because the signaling pathway may be one of the many important factors for research and development of novel drug with specific molecular targetting such as P2X7R in T cells. In addition, different subsets of T cells may also have differential sensitivities of the same receptor. Other previous reviews found in the litterature have already mentioned most of the information currently stated in this manuscript. The authors should try to provide their insights specifically into the role of T cell expressing P2X7R in intestinal barrier disruption as a potential drug target for modulating T cell responses in particular, as proposed in the title. 2.The letters depicting components within figure 1 are too small.

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Reviewer's code: 03645449
Position: Peer Reviewer
Academic degree: MD
Professional title: Doctor
Reviewer's Country/Territory: Iran
Author's Country/Territory: China

Manuscript submission date: 2022-03-12
Reviewer chosen by: Dong-Mei Wang
Reviewer accepted review: 2022-05-23 10:49
Reviewer performed review: 2022-06-02 07:59
Review time: 9 Days and 21 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
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statements	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

1. Please explain more about the role of the P2X7 receptor in infections; for example, in recent years, multiple SNPs of the P2X7 receptor have been found in patients with bacterial sepsis. In addition, the P2X7 receptor of dendritic cells derived from healthy individuals is found to have similar SNPs to those of patients with bacterial sepsis. Systemic administration of BzATP (the agonist of the P2X7 receptor) increases the inflammatory response, while systemic blocking the P2X7 receptor with A740003 reduces the level of pro-inflammatory cytokines in intestinal mucosa after cecal ligation and puncture (CLP). 2. Please cite more recent publications: Grassi F. The P2X7 receptor as regulator of T cell development and function. Frontiers in Immunology. 2020;11:1179. 3. There are 31 repeated references below in the manuscript. Please omit them!

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RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 76325

Title: X7 receptor as the regulator of T-cell function in intestinal barrier disruption

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Peer-review model: Single blind

Reviewer's code: 03645449
Position: Peer Reviewer
Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Iran

Author's Country/Territory: China

Manuscript submission date: 2022-03-12

Reviewer chosen by: Ze-Mao Gong

Reviewer accepted review: 2022-06-29 03:28

Reviewer performed review: 2022-06-29 03:38

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

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SPECIFIC COMMENTS TO AUTHORS

Thank you for your revisions.

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Manuscript submission date: 2022-03-12

Reviewer chosen by: Ze-Mao Gong

Reviewer accepted review: 2022-06-30 03:49

Reviewer performed review: 2022-06-30 04:21

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
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SPECIFIC COMMENTS TO AUTHORS

The manuscript is improved in the aspects that the authors have addressed the issues raised by this reviewer. However, there is still grammatical errors in some places in the authors' yellow highlighted sentences e.g. -'...excessive these cells..' should read '..the excess of these cells...' -'...About 10 Loss of function (LOF)...' has to be corrected to be '...About 10 loss of function (LOF)...' -it has to be 'mouse models' not 'mice models' -'...mTOR signaling pathways innate and adaptive immune responses'. should read '...mTOR signaling pathways in innate and adaptive immune responses'.