

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 85176

Title: Transcriptome sequencing and experiments reveal the effect of formyl peptide receptor 2 on liver homeostasis

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06143349

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Professor

Reviewer's Country/Territory: Japan

Author's Country/Territory: China

Manuscript submission date: 2023-04-18

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-04-21 00:44

Reviewer performed review: 2023-04-24 07:45

Review time: 3 Days and 7 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 Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
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 checked="" type="checkbox"/> Yes <input 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

Research on FPRs mainly focused on regulating inflammation, but increasing evidence showed that FPRs can also regulate the host's defense process, including regulating the activation of neutrophils and dendritic cells, and participating in the host's resistance to bacterial infection, tissue damage, and wound healing. This discovery challenges the previously reported pattern of host defense against *Listeria*, that is, the receptor TLR2 on the host cell is activated by bacterial lipoprotein, and then CXCR2 ligand is produced to induce neutrophil accumulation. Fpr2 activated the downstream key signal molecules and produced chemokine CXCL1/2 to attract neutrophils, which indicated that Fpr2, as a chemotactic receptor, could not only attract neutrophils directly, but also indirectly control the chemotaxis of neutrophils by regulating the production of chemokines to resist infection. This study is designed to explore the role of this receptor in helping the host resist bacterial infections. The study is well designed and the results are very interesting. Comments: 1. The manuscript requires a minor editing. 2. How about the limit of the study? Please make a short discussion about it. 3. The images should be updated. Too small.

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Title: Transcriptome sequencing and experiments reveal the effect of formyl peptide receptor 2 on liver homeostasis

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06143350

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Associate Professor

Reviewer's Country/Territory: Germany

Author's Country/Territory: China

Manuscript submission date: 2023-04-18

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-04-19 08:10

Reviewer performed review: 2023-04-25 00:42

Review time: 5 Days and 16 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
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
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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

In this study, the authors found that Fpr2 participated in the regulation of cell cycle and cell proliferation, affecting the expression of IL-10 and CXCL-1, and playing an important protective role in maintaining liver homeostasis. These findings are very interesting. The study can give some suggestions to the study of the liver homeostasis. I have no specific comments to the authors. Well done.