

PEER-REVIEW REPORT

Name of journal: *World Journal of Hepatology*

Manuscript NO: 88448

Title: Cell-type specific role of autophagy in the liver and its implications in NAFLD

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03766000

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Assistant Professor, Research Assistant Professor

Reviewer's Country/Territory: China

Author's Country/Territory: India

Manuscript submission date: 2023-09-25

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-10-24 00:10

Reviewer performed review: 2023-10-30 03:41

Review time: 6 Days and 3 Hours

Scientific quality	☐ Grade A: Excellent ☐ Grade B: Very good ☐ Grade C: Good ☒ Grade D: Fair ☐ Grade E: Do not publish
Novelty of this manuscript	☐ Grade A: Excellent ☒ Grade B: Good ☐ Grade C: Fair ☐ Grade D: No novelty
Creativity or innovation of this manuscript	☐ Grade A: Excellent ☐ Grade B: Good ☒ Grade C: Fair ☐ Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	☐ Grade A: Excellent ☒ Grade B: Good ☐ Grade C: Fair ☐ Grade D: No scientific significance
Language quality	☐ 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 ☒ Major revision ☐ Rejection
Re-review	☒ Yes ☐ No
Peer-reviewer statements	Peer-Review: ☒ Anonymous ☐ Onymous
	Conflicts-of-Interest: ☐ Yes ☒ No

SPECIFIC COMMENTS TO AUTHORS

Non-alcoholic fatty liver disease (NAFLD) is a major metabolic liver disease which has no pharmacological therapies available to date. In this review, the authors introduced the mechanisms of autophagy and the important roles of autophagy under physiological and pathological conditions. The authors also uncovered the distinct role of cell-type specific autophagy in hepatic physiology and its deregulation in NAFLD. Major comments regarding the current content manuscript: 1. There are three types of autophagy: microautophagy, chaperone-mediated autophagy, and macroautophagy, which type of autophagy does the author focus in this article and why? 2. Why are two 4.1 in part 4? 3. Maybe section 4 -7 could be summed up into a big one with several subheadings. 4. There are many irregular writings in the manuscript.

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Reviewer's code: 05084376

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: India

Manuscript submission date: 2023-09-25

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-11-01 02:30

Reviewer performed review: 2023-11-01 03:29

Review time: 1 Hour

Scientific quality	☐ Grade A: Excellent ☒ Grade B: Very good ☐ Grade C: Good ☐ Grade D: Fair ☐ Grade E: Do not publish
Novelty of this manuscript	☐ Grade A: Excellent ☒ Grade B: Good ☐ Grade C: Fair ☐ Grade D: No novelty
Creativity or innovation of this manuscript	☐ Grade A: Excellent ☒ Grade B: Good ☐ Grade C: Fair ☐ Grade D: No creativity or innovation

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	Conflicts-of-Interest: ☐ Yes ☒ No

SPECIFIC COMMENTS TO AUTHORS

Raza et al. reviewed on the current understanding of autophagy in liver cells and its implications for the management of NAFLD. Given the prominent role of autophagy in liver metabolism, this topic is interesting for physicians and scientist. This review is properly designed, meticulously conducted and well written. This reviewer has some minor suggestions. 1, Introduction, first paragraph. Suggest to discuss the pathomechanism of NAFLD (unclear), the current multi-hit hypothesis, and its association with dormant lifestyle. One recent article could be cited: Okekunle AP, Youn J, Song S, Chung GE, Yang SY, Kim YS, Lee JE. Predicted pro-inflammatory hs-CRP score and non-alcoholic fatty liver disease. *Gastroenterol Rep (Oxf)*. 2023 Oct 11;11:goad059. doi: 10.1093/gastro/goad059. PMID: 37842198; PMCID: PMC10568523. 2, Section 3.3: what are the similarities and differences in autophagy between mouse models and human NAFLD? 3, The second “4.1” should be “4.2”. 4, Suggest to discuss the prominent questions/future directions in autophagy research in four individual liver cell types.