

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 84685

Title: Vascular endothelial growth factor protein and gene delivery by novel nanomaterials for promoting liver regeneration after partial hepatectomy

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03294368

Position: Editorial Board

Academic degree: DSc, MD, PhD

Professional title: Dean, Professor

Reviewer's Country/Territory: Georgia

Author's Country/Territory: China

Manuscript submission date: 2023-04-03

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-04-03 09:00

Reviewer performed review: 2023-04-11 10:00

Review time: 8 Days and 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Scientific quality	☐ Grade A: Excellent ☐ Grade B: Very good ☒ Grade C: Good ☐ Grade D: Fair ☐ Grade E: Do not publish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

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

The paper provides a review of an innovative approach to support liver regeneration (LR) after partial hepatectomy (PH). The title adequately reflects the main subject of the review, and the abstract is well written and reflects the core idea of the work. The manuscript interprets the data from the literature clearly and critically, as evidenced by the conclusion, in which the authors state that more studies are needed to better control VEGF expression to avoid the promotion of tumor growth and to promote tissue regeneration. The figures and diagrams are of sufficient quality and are appropriately illustrative, providing good support to understand the idea of the review. However, there are some points that require further clarification. The role of progenitor cells in LR after PH needs better background information, as their participation is not generally involved in this process. Additionally, the benefit of retrograde intrabiliary injection of VEGF should be confirmed more carefully, as this procedure may be associated with several complications. While it is true that the intrahepatic biliary system provides a surface in direct contact with almost all hepatocytes, this is primarily true for the bile canaliculi, rather than the larger intrahepatic bile ducts. Furthermore, retrogradely

injected mass from the common bile duct may not necessarily reach the bile canaliculi, as this has been observed in previous studies on biliary corrosion casts. Overall, I evaluate the review positively and consider it suitable for publication with some minor revisions.

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 84685

Title: Vascular endothelial growth factor protein and gene delivery by novel nanomaterials for promoting liver regeneration after partial hepatectomy

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03257825

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Assistant Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2023-04-03

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-04-28 17:44

Reviewer performed review: 2023-04-30 20:45

Review time: 2 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

This minireview submitted by Jin et al. has introduced and discussed the recent advances in developing nanomaterials for liver specific VEGF delivery for promoting liver regeneration following partial hepatectomy. This manuscript is informative and interesting. However, there are a couple of concerns. (1) This manuscript has discussed the delivery of both VEGF protein and gene by nanoparticles for improving liver regeneration. However, the title "Novel Nano Materials Loaded with VEGF Promote Liver Regeneration after Partial Hepatectomy" reflects the use of VEGF protein only. Therefore, a better title could be "VEGF Protein and Gene Delivery by Novel Nanomaterials for Promoting Liver Regeneration after Partial Hepatectomy". (2) Since anti-VEGF is an approach to cancer therapy, the potential adverse effects of VEGF liver delivery should be discussed.

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 84685

Title: Vascular endothelial growth factor protein and gene delivery by novel nanomaterials for promoting liver regeneration after partial hepatectomy

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06488911

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Iran

Author's Country/Territory: China

Manuscript submission date: 2023-04-03

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-04-26 07:25

Reviewer performed review: 2023-05-02 13:35

Review time: 6 Days and 6 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

Please provide a part about limitation and future outlook of the Novel Nano Materials Loaded with VEGF, which Promote Liver Regeneration after Partial Hepatectomy.