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## PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 90437

Title: Biological scaffold as potential platforms for stem cells: Current development and

applications in wound healing

Provenance and peer review: Invited manuscript; Externally peer reviewed

**Peer-review model:** Single blind

Reviewer's code: 06267808

**Position:** Peer Reviewer

Academic degree: Doctor

Professional title: Professor

Reviewer's Country/Territory: Russia

Author's Country/Territory: China

Manuscript submission date: 2023-12-04

Reviewer chosen by: Meng-Liu Luo

Reviewer accepted review: 2024-01-22 19:28

Reviewer performed review: 2024-01-29 06:50

Review time: 6 Days and 11 Hours

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	[ ] Grade D: Fair [ ] Grade E: Do not publish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



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Scientific significance of the conclusion in this manuscript	<ul> <li>[ ] Grade A: Excellent [Y] Grade B: Good [] Grade C: Fair</li> <li>[ ] Grade D: No scientific significance</li> </ul>
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	<ul> <li>[ ] Accept (High priority) [ ] Accept (General priority)</li> <li>[ ] Minor revision [ Y] Major revision [ ] Rejection</li> </ul>
Re-review	[Y]Yes []No
Peer-reviewer statements	Peer-Review: [Y] Anonymous       [] Onymous         Conflicts-of-Interest: [] Yes       [Y] No

## SPECIFIC COMMENTS TO AUTHORS

The manuscript titled "Biological scaffold as potential platforms for stem cells: current development and applications in wound healing" offers a comprehensive overview of the current development and application of biological scaffolds for stem cells and their derivatives in wound healing. It highlights the effect of scaffolds on stem cell behavior and identifies key characteristics of scaffolds responsible for improved cell activities when used in combination with biomaterials. The topic is relevant and the manuscript is well structured and deserves consideration. However, there are some points that can be fixed and improve the quality of the manuscript. The main comments and recommendations are listed below. Recent studies show that preparation of bacterial cellulose scaffold is not so complex. However, bacterial cellulose has high biocompatibility and enchased structural and mechanical properties and can be used for the engineering of hard and soft tissues and should be discussed better. Alginates and chitosan applications can be expanded. Regarding biopolymers application in wound healing, more attention should be given to recent studies of biopolymers modification with functional nanoparticles. Table 1. Probably, cellulose should be divided to bacterial



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cellulose and plant cellulose since their indexes in the table will be different. Tables and figures should be readable separately from the main text. Thus, it is recommended to define all abbreviation under the table 2. The text should be checked for typos and grammatical errors.