



PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 63308

Title: Genome engineering and disease modeling in pancreatic beta cells via programmable nucleases for insulin gene therapy; promises of CRISPR/Cas9 technology

Reviewer's code: 04600414

Position: Editorial Board

Academic degree: MD

Professional title: Associate Professor, Dean, Research Assistant Professor, Teacher

Reviewer's Country/Territory: Indonesia

Author's Country/Territory: Turkey

Manuscript submission date: 2021-01-27

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-01-27 13:13

Reviewer performed review: 2021-01-27 13:55

Review time: 1 Hour

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 Grade E: Do not publish
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 checked="" type="checkbox"/> Accept (General priority) <input 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



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SPECIFIC COMMENTS TO AUTHORS

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Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Turkey

Manuscript submission date: 2021-01-27

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-01-30 04:26

Reviewer performed review: 2021-02-06 15:31

Review time: 7 Days and 11 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
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
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This manuscript describes the application of gene editing technology, especially CRISPR-cas9 technology, in insulin gene editing, animal model construction of diabetes and insulin gene editing replacement therapy. The future application of CRISPR-cas9 technology in human diseases is promising. The language of this manuscript is clear. The application of CRISPR-cas9 technology in insulin gene editing is described in detail, also there are some suggestions: 1. I cannot get the focus of this manuscript from the abstract. The abstract should focus on the main content of this review, rather than introducing the history of gene editing technology, which can be removed to the introduction section. 2. Many pages in the article describe the development history of gene editing technologies, including ZFN, Talen and CRISPR-cas9. I suggest that some of the content can be deleted and the paper needs to focus on the content as your title demonstrated. 3. The article described in detail the application of lentivirus vector to transfection the edited insulin gene into mice, but at present there are many controversies about the application of lentivirus in vivo, and the application of AAV may be safer and more effective. 4. Have you experimented with what is depicted in Figure 3 and 4, or was it just conceived and never worked on? 5. The figures are well prepared. A copyright license may be required if specific software was used in the creation of the figures.



RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Stem Cells

Manuscript NO: 63308

Title: Genome engineering and disease modeling in pancreatic beta cells via programmable nucleases for insulin gene therapy; promises of CRISPR/Cas9 technology

Reviewer's code: 05418714

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Turkey

Manuscript submission date: 2021-01-27

Reviewer chosen by: Man Liu

Reviewer accepted review: 2021-04-07 13:58

Reviewer performed review: 2021-04-07 14:05

Review time: 1 Hour

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
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input 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 checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
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

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The manuscript has scientific value and can be accepted.



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Manuscript submission date: 2021-01-27

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Reviewer performed review: 2021-04-09 06:54

Review time: 3 Days and 3 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
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Great article