

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Diabetes*

**Manuscript NO:** 89369

**Title:** Glucagon-like peptide-1 receptor agonists as a possible intervention to delay the onset of type 1 diabetes: A new horizon

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 03372482

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Academic Research, Professor

**Reviewer's Country/Territory:** Egypt

**Author's Country/Territory:** United States

**Manuscript submission date:** 2023-11-03

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-11-05 07:14

**Reviewer performed review:** 2023-11-05 07:16

**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 Grade E: Do not publish
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

<b>Scientific significance of the conclusion in this manuscript</b>	<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
<b>Language quality</b>	<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
<b>Conclusion</b>	<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
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input type="checkbox"/> Anonymous <input checked="" type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS

Type 1 Diabetes (T1D) arises from an autoimmune response that damages pancreatic  $\beta$ -cells, causing insulin deficiency. The only treatment for this disease is Intensive insulin therapy, which requires multiple daily injections or continuous subcutaneous insulin infusion with frequent monitoring of blood glucose. While advances have been made with closed-loop hybrid pumps and continuous glucose monitoring devices, 75% of subjects with T1D have an A1c above 7%. Moreover, there is a significant disease and emotional burden associated with the diagnosis and management of T1D. Our recent report has shown that Semaglutide, a GLP-1 RA, when used in patients recently diagnosed with T1D, allows them to maintain glucose control for 12 months without insulin. In all these subjects, fasting c peptide was 0.6 and increased following Semaglutide. This observation, along with the evidence that subjects with T1D have 50% of their insulin secretory capacity intact at the time of diagnosis, suggests that if Semaglutide is started earlier in subjects at risk of T1D, it may be able to delay the onset of T1D and initiation of insulin in this population. Teplizumab is the only FDA-approved treatment shown to delay the onset of T1D by 32 months. There is an

urgent need to develop future therapies that can further delay the onset of T1D. The debate on T1D risk screening continues, especially in those without a family history, with the benefits of early detection being weighed against the financial and emotional implications. Our research suggests that early screening of T1D combined with interventions like GLP-1 RA could significantly delay the onset of T1D in subjects at high risk of this disease. This approach offers a promising avenue for improving the quality of life for T1D patients and needs to be investigated in prospective randomized controlled clinical trials. In General: it's a good paper and the subject of the manuscript is applicable and useful. Title: the title properly explains the purpose and objective of the article Abstract: abstract contains an appropriate summary for the article, the language used in the abstract is easy to read and understand, and there are no suggestions for improvement. Introduction: authors do provide adequate background on the topic and reason for this article and describe what the authors hoped to achieve. Conclusion: in general: Good and the research provides sample data for the authors to make their conclusion. Finally, this was an attractive article. In its current state, it adds much new insightful information to the field. Therefore, I accept that paper to be published in your journal.

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** *World Journal of Diabetes*

**Manuscript NO:** 89369

**Title:** Glucagon-like peptide-1 receptor agonists as a possible intervention to delay the onset of type 1 diabetes: A new horizon

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 03372482

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Academic Research, Professor

**Reviewer's Country/Territory:** Egypt

**Author's Country/Territory:** United States

**Manuscript submission date:** 2023-11-03

**Reviewer chosen by:** Li Li

**Reviewer accepted review:** 2023-12-21 07:42

**Reviewer performed review:** 2023-12-21 07:43

**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	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [ ☒ ] Yes [ ☐ ] No

## SPECIFIC COMMENTS TO AUTHORS

ype 1 Diabetes (T1D) arises from an autoimmune response that damages pancreatic  $\beta$ -cells, causing insulin deficiency. The only treatment for this disease is Intensive insulin therapy, which requires multiple daily injections or continuous subcutaneous insulin infusion with frequent monitoring of blood glucose. While advances have been made with closed-loop hybrid pumps and continuous glucose monitoring devices, 75% of subjects with T1D have an A1c above 7%. Moreover, there is a significant disease and emotional burden associated with the diagnosis and management of T1D. Our recent report has shown that Semaglutide, a GLP-1 RA, when used in patients recently diagnosed with T1D, allows them to maintain glucose control for 12 months without insulin. In all these subjects, fasting c peptide was 0.6 and increased following Semaglutide. This observation, along with the evidence that subjects with T1D have 50% of their insulin secretory capacity intact at the time of diagnosis, suggests that if Semaglutide is started earlier in subjects at risk of T1D, it may be able to delay the onset of T1D and initiation of insulin in this population. Teplizumab is the only FDA-approved treatment shown to delay the onset of T1D by 32 months. Clearly, there is an urgent need to develop future therapies that can further delay the onset of T1D. The debate on T1D risk screening continues, especially in those without a family history, with the benefits of early detection being weighed against the financial and emotional implications. Our research suggests that early screening of T1D combined with interventions like GLP-1 RA could significantly delay the onset of T1D in subjects at high risk of this disease. This approach offers a promising avenue for improving the quality of life for T1D patients and needs to be investigated in prospective randomized controlled clinical trials. In General: it's a good paper and the subject of the manuscript is

applicable and useful. Finally, this was an attractive article. In its current state, it adds much new insightful information to the field.