# PEER-REVIEW REPORT

**Name of journal:** *World Journal of Experimental Medicine*

**Manuscript NO:** 87916

**Title:** AI-POWERED GLUCOSE MONITORING AND CONTROLLING SYSTEM: PUMPING MODULE

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

**Peer-review model:** Single blind

**Reviewer's code:** 07734331

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

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

**Author's Country/Territory:** India

**Manuscript submission date:** 2023-09-02

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-09-19 08:46

**Reviewer performed review:** 2023-09-25 23:00

**Review time:** 6 Days and 14 Hours

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 [  ] Grade D: Fair    [  ] Grade E: Do not publish |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

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

**SPECIFIC COMMENTS TO AUTHORS**

1- The paper contains numerous spelling and grammatical errors which must be corrected. 2- Some aspects of the methodology have not been well explained. This should be clarified. 3- The abstract has not been included the main results. 4- The introduction needs more information and new references. 5- There are some inconsistencies in the numbers of Figures. The authors started with Figure 3. 6- The discussion needs more explanations.

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

**Peer-review model:** Single blind

**Reviewer's code:** 05123031

**Position:** Editorial Board

**Academic degree:** Doctor, MD, PhD

**Professional title:** Associate Professor

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

**Author's Country/Territory:** India

**Manuscript submission date:** 2023-09-02

**Reviewer chosen by:** Yu-Lu Chen

**Reviewer accepted review:** 2023-10-17 02:16

**Reviewer performed review:** 2023-10-20 12:32

**Review time:** 3 Days and 10 Hours

| Scientific quality | [  ] Grade A: Excellent    [ Y] Grade B: Very good    [  ] Grade C: 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 this manuscript | [  ] Grade A: Excellent    [ Y] Grade B: Good    [  ] Grade C: Fair [  ] Grade D: No creativity or innovation |

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

**SPECIFIC COMMENTS TO AUTHORS**

Manuscript ID: 87916 Title: AI-POWERED GLUCOSE MONITORING AND CONTROLLING SYSTEM: PUMPING MODULE (Part-2) 1. What specific challenges in diabetes management does the integration of AI and real-time glucose monitoring aim to address? 2. How do the AI algorithms used in the system analyze glucose data to make insulin dosage recommendations, and what machine learning techniques are employed? 3. Could you elaborate on the advantages of non-invasive or minimally invasive glucose sensors in comparison to traditional fingerstick tests for monitoring blood sugar levels? 4. What evidence or studies support the claim that the AI-powered system can reduce the reliance on manual intervention and guesswork in diabetes management? 5. How do the different simulations (e.g., PID controller, basal dosage) impact the ability to maintain stable blood glucose levels, and what are the implications for real-world diabetes care? 6. What validation processes are in place to assess the effectiveness of the AI-powered system, and what metrics are used to evaluate its performance? 7. How does the system take into account individual variations in patient responses to interventions, and how is personalization achieved? 8. What challenges or limitations are associated with the use

of AI in diabetes management, and how might these be addressed in future research? 9. Could you provide more information on the wireless technology used for system component communication and its reliability in a clinical setting? 10. How might the integration of AI and advanced glucose monitoring impact the healthcare system, including the burden on healthcare providers and cost-effectiveness of diabetes care?

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

**Peer-review model:** Single blind

**Reviewer's code:** 05573818

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Chief Doctor, Surgeon

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

**Author's Country/Territory:** India

**Manuscript submission date:** 2023-09-02

**Reviewer chosen by:** Yu-Lu Chen

**Reviewer accepted review:** 2023-10-16 14:50

**Reviewer performed review:** 2023-10-24 16:00

**Review time:** 8 Days and 1 Hour

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

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

## SPECIFIC COMMENTS TO AUTHORS

This manuscript is interesting and meaningful. The authors presented the basic information of AI-POWERED GLUCOSE MONITORING AND CONTROLLING SYSTEM: PUMPING MODULE. Specifically, this topic falls within the scope of our journal. However, I have to provide several suggestions. 1 Title. The title should be changed. AI-POWERED GLUCOSE MONITORING AND CONTROLLING SYSTEM: PUMPING MODULE. The title should be focus and present title was confusing. What's your main study, AI algorithm, GLUCOSE MONITORING devices, or application of AI-POWERED GLUCOSE MONITORING? 2 Abstract. The abstract should be concise. Please re-organize this part. 3 Key Words. Yes. 4 Background. This part is too long and confusing. Please reorganize. 5 Methods. Please supply the AI algorithm of GLUCOSE MONITORING. How many volunteers is it? What's the types of insulin? 6 Results. This part was confusing. Please re-organize. 7 Discussion. Yes. 8 Illustrations and tables. Please re-order the number of figures. Moreover, the format of the figures was inconsistent and the resolution was too low. 9 Please polish the sentence. Several grammar errors were found in the manuscript.

# RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** *World Journal of Experimental Medicine*

**Manuscript NO:** 87916

**Title:** AI-POWERED GLUCOSE MONITORING AND CONTROLLING SYSTEM: PUMPING MODULE

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

**Peer-review model:** Single blind

**Reviewer's code:** 05123031

**Position:** Editorial Board

**Academic degree:** Doctor, MD, PhD

**Professional title:** Associate Professor

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

**Author's Country/Territory:** India

**Manuscript submission date:** 2023-09-02

**Reviewer chosen by:** Ji-Hong Liu

**Reviewer accepted review:** 2023-12-19 03:29

**Reviewer performed review:** 2023-12-20 22:46

**Review time:** 1 Day and 19 Hours

| Scientific quality | [  ] Grade A: Excellent   [  ] Grade B: Very good   [ Y] Grade C: Good [  ] Grade D: Fair   [  ] Grade E: Do not publish |
|---|---|
| Language quality | [  ] Grade A: Priority publishing   [ Y] Grade B: Minor language polishing [  ] Grade C: A great deal of language polishing   [  ] Grade D: Rejection |
| Conclusion | [  ] Accept (High priority)   [ Y] Accept (General priority) [  ] Minor revision   [  ] Major revision   [  ] Rejection |
| Peer-reviewer | Peer-Review: [ Y] Anonymous   [  ] Onymous |

| **statements** | Conflicts-of-Interest: [   ] Yes   [ Y] No |
| --- | --- |

## SPECIFIC COMMENTS TO AUTHORS

The authors have revised the manuscript according to the reviewers' comments.