

PEER-REVIEW REPORT

Name of journal: World Journal of Diabetes

Manuscript NO: 84114

Title: Cellular and molecular overview of gestational diabetes mellitus: Is it predictable

and preventable?

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 04122784 Position: Editorial Board Academic degree: MD, PhD

Professional title: Doctor, Research Assistant Professor

Reviewer's Country/Territory: China

Author's Country/Territory: Taiwan

Manuscript submission date: 2023-02-26

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-03-27 10:12

Reviewer performed review: 2023-03-31 16:19

Review time: 4 Days and 6 Hours

Scientific quality	[] Grade A: Excellent [] Grade B: Very good [] Grade C: Good
1 3	[Y] Grade D: Fair [] Grade E: Do not publish
Novelty of this manuscript	[] Grade A: Excellent [] Grade B: Good [Y] Grade C: Fair [] Grade D: No novelty
Creativity or innovation of this manuscript	[] Grade A: Excellent [] Grade B: Good [Y] 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 [] Grade B: Minor language polishing [Y] 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

This review aims to discuss the underlying molecular and cellular mechanisms of GDM and the possible influential factors, as well as the predictive and preventive measures based on the clinical studies which investigated the etiology and management of GDM. Overall, this is an interesting study, which may be beneficial to the clinical management of GDM. However, I have several concerns as follow: 1. There is only 1 paragraph in "introduction". The authors were suggested to divide it. Moreover, the size can also be reduced, if possible. 2. The figure 2 is helpful. However, it is far away from the major point of the review. GLUT4 is only one important part of this review. It is important to have a table/figure to summarize the potential factors to the prediction/prevention strategy for GDM. It should also be clarified in the manuscript. More detailed subtitle will be helpful. 3. Please also reduce the size of conclusion. The reviewer suggests to move some part of conclusion forward as "discussion". The conclusion has to briefly summarize the major point/result of the whole review. 4. Moreover, it is helpful to further consider the advantage and disadvantage of each strategy in table/text. It is more friendly to the readers. 5. Although the study has language certificate, it still needs



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carefully editing by someone with expertise in technical English writing, preferably from a native English speaker with appropriate research background.



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Peer-review model: Single blind

Reviewer's code: 03282635 Position: Editor-in-Chief Academic degree: MD, PhD

Professional title: Consultant Physician-Scientist, Senior Researcher

Reviewer's Country/Territory: Italy

Author's Country/Territory: Taiwan

Manuscript submission date: 2023-02-26

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-04-10 10:15

Reviewer performed review: 2023-04-10 10:36

Review time: 1 Hour

Scientific quality	[] Grade A: Excellent [Y] Grade B: Very good [] Grade C: Good
- 1	[] 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) [Y] Accept (General priority) [] 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

This is a nice article encompassing a molecular overview of prediction and prevention of GDM. The article is well written and interesting. I am happy with publication of the article after a minor revision in which I would like the authors to do an effort to summarize major concepts of treatment in the discussion along with a recent major reference (ref 1). I would reccomend adding a brief sentence stating that we should update current treatment of GDM which is very frequently suboptimal and citing ref.2. More so the effect of COVID-19 on the risk of GDM should be mentioned given its relevance of this end and major recent evidences emerging from the Intercovid study (ref 2). This would add importance to the issue of vaccination for COVID 19 which improves substantially both maternal and pregnancy outcome (ref 3) References 1. Chatzakis C, et al. Gestational Diabetes Mellitus Pharmacological Prevention and Treatment. Curr Pharm Des. 2021;27(36):3833-3840. doi: 10.2174/1381612827666210125155428. PMID: 2. Eskenazi B, et al. Diabetes mellitus, maternal adiposity, and 33550962. insulin-dependent gestational diabetes are associated with COVID-19 in pregnancy: the INTERCOVID study. Am J Obstet Gynecol. 2022 Jul;227(1):74.e1-74.e16. doi:



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10.1016/j.ajog.2021.12.032. Epub 2021 Dec 20. PMID: 34942154; PMCID: PMC8686449. 4. Villar J, et al.; INTERCOVID-2022 International Consortium. Pregnancy outcomes and vaccine effectiveness during the period of omicron as the variant of concern, INTERCOVID-2022: a multinational, observational study. Lancet. 2023 Feb 11;401(10375):447-457. doi: 10.1016/S0140-6736(22)02467-9. Epub 2023 Jan 17. PMID: 36669520; PMCID: PMC9910845.



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Reviewer's code: 03536702 Position: Editorial Board Academic degree: PhD

Professional title: Professor

Reviewer's Country/Territory: China

Author's Country/Territory: Taiwan

Manuscript submission date: 2023-02-26

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-04-11 00:01

Reviewer performed review: 2023-04-19 01:22

Review time: 8 Days and 1 Hour

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
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Re-review	[]Yes [Y]No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [] Onymous Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

In this review, the authors discussed the underlying molecular and cellular mechanisms of gestational diabetes mellitus (GDM) and the possible influential factors, as well as the predictive and preventive measures based on the basic and clinical studies which investigated the etiology, pathophysiology and management of GDM. The review is well written and informative, containing the current research progress in this field, which may help understand the principles of current drug actions and provide a clue to recognize new treatment targets. I suggest that this review be accepted for publication after the following minor issues are addressed. 1.Line 6 on page 4, the unit 'gm' should be 'g', and there should be a space between '75' and the unit 'g'. 2.The gene names should be italicized. Some gene names are not stardardized, e.g., 'PrIR' should be 'PrIr'. Please pay attention to these issues.