PEER-REVIEW REPORT

Name of journal: *World Journal of Diabetes*

Manuscript NO: 82701

Title: Genetics of Diabetes

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05792223

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Doctor

Reviewer's Country/Territory: Japan

Author's Country/Territory: India

Manuscript submission date: 2022-12-26

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-02-15 09:11

Reviewer performed review: 2023-02-15 09:57

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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 [ ] Grade B: Good [Y] 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	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

I think this is a useful review at this point in time for personalized medicine for diabetes. However, this is a good description of MODY, but there is no mention of atypical diabetes. Need to check the literature and add it.

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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) [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

This is a well-written review paper concerning the classification, genetic variants associated with diabetes, importance of uncommon variants, gene-environment interactions and epigenetics. Additionally, the authors give overview about the pharmacogenomics in Diabetes Mellitus.   The authors have reviewed and analyzed a sufficient amount of literature (186 articles). The review paper has been supplied with four Tables and three Figures.   In this review, authors pay a most attention to diabetes susceptibility genes, epigenetic alterations, polygenic risk scores for T2DM and pharmacogenomics in diabetes mellitus.   The authors also described the potential therapeutic drugs including phytochemicals used in prevention and treatment of diabetes and its complications.   However, the following point need to be considered:

1. In the Figure 1 by description of "Types of diabetes", the authors consider that "In T2D body's own immune system mistakenly destroys the insulin-producing pancreatic -cells, thereby affecting insulin production". This statement is not correct.

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	[Y] Grade A: Excellent [ ] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No scientific significance
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[Y] Accept (High priority) [ ] 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

Vanita Vanita and colleagues provided an overview of the Genetics of Diabetes. They summarized the classification, global prevalence, pathogenesis of DM. In addition, the identification of diabetes susceptibility genes, epigenetic alterations in T2DM, microRNAs (miRNAs) related to DM, polygenic risk scores for T2DM, pharmacogenomics in DM et al were also elaborated by them. The language of this manuscript is smooth, the structure is clear and organized, and it is a very excellent review. I can not direct any criticism to this manuscript.