

PEER-REVIEW REPORT

Name of journal: World Journal of Diabetes

Manuscript NO: 53065

Title: Fundamentals about onset and progressive disease character of type 2 diabetes mellitus

Reviewer's code: 00058696

Position: Editor-in-Chief

Academic degree: MD

Professional title: Doctor, Professor

Reviewer's country: United States

Author's country: Netherlands

Reviewer chosen by: Jia-Ping Yan

Reviewer accepted review: 2019-12-23 13:21

Reviewer performed review: 2019-12-29 15:26

Review time: 6 Days and 2 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input checked="" type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input checked="" type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input checked="" type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

I have carefully read this new manuscript. My major questions are summarized below:

- 1) **TITLE:** The article does not presently match the title. Perhaps a better description would be along the lines of "Understanding the Concept of Insulin Resistance: A Hypothesis".
- 2) **ABSTRACT:** The term "insulin resistance" is not introduced (it is introduced in the INTRODUCTION). In the Abstract results, the author presents no potential cause for mitochondrial hyperthermia "of" (not at) type 2 diabetes.
- 3) **CORE TIPS:** The first sentence is not taken from the results of the Abstract and so either the Abstract must be expanded or this sentence removed. The author should spell out "UI". There is no information in this manuscript that supports the final sentence.
- 4) **CELL MEMBRANES:** In the bottom paragraph of page 4, the abbreviation UI should be spelled out for identification. The author does not describe how UI is directly or indirectly measured, and what validation studies have been completed with regards to the UI assay. In the first paragraph of page 5 starting with "The consequences of the ", the author should be clear that it is a notion or hypothesis that insulin resistance is related to a reduction in UI. On page 5, paragraph 5, starting with "Several studies published UI values and proved", the author should describe how the results "prove" (perhaps "support" would be more appropriate?).
- 5) **MEMBRANE FLEXIBILITY:** On page 6, first paragraph starting with "Next, membrane flexibility", the author uses the slang term "hardened". Author, please use proper biomedical terminology.
- 6) **Page 7:** a thought experiment. This organization utilizing the concept of a Gedanken Experiment is more consistent with the preparation of an Editorial than a Review Article.
- 7) **HEAT PRODUCTION AND THE ONSET OF TYPE 2 DIABETES:** In paragraph 2, "It is now time to build a model"; again, this organization is more consistent with the preparation of an Editorial than a Review Article. The first sentence in paragraph 3 starting with "Remember that Kelley" is not a complete sentence and needs to be rewritten.
- 8) **EXERCISE:** In paragraph 1, "If this



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result may be extrapolated to human tissues". Why should it be extrapolated? And how should our interpretation be changed if it cannot be extrapolated? In paragraph 2, it is unclear whether the reported reductions in the risk of developing type 2 diabetes is simply due to weight loss alone (e.g. one needs a control group of individuals who are of normal weight whose risk of developing type 2 diabetes is examined following lifestyle interventions). 9) FIGURE LEGENDS: Figure 1: has the author obtained permission to reprint from the Publishing Company for Reference 37? 10) TABLES: the author needs to spell out abbreviations used in Tables 3, 5, 6, and 8.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

BPG Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No