

## PEER-REVIEW REPORT

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

**Manuscript NO:** 80246

**Title:** The role of selenium in type 2 diabetes, insulin resistance and insulin secretion

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

**Peer-review model:** Single blind

**Reviewer's code:** 05315572

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Chief Doctor, Professor

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

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

**Manuscript submission date:** 2022-09-20

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-09-20 15:40

**Reviewer performed review:** 2022-09-21 05:27

**Review time:** 13 Hours

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Scientific quality</b>         | <input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good<br><input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish                                                                                                                                                                                                                 |
| <b>Judgment by peer reviewers</b> | Does this manuscript meet the code of ethics standards?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important novelty?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important creativity or innovation?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript use reliable research methods? |

|                                 |                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 | <input type="checkbox"/> <b>[41]</b> Yes <input type="checkbox"/> <b>[40]</b> No<br>Are the manuscript-accompanying data and figures authentic?<br><input type="checkbox"/> <b>[51]</b> Yes <input type="checkbox"/> <b>[50]</b> No<br>Does this manuscript make scientifically significant conclusions?<br><input type="checkbox"/> <b>[61]</b> Yes <input type="checkbox"/> <b>[60]</b> No |
| <b>Language quality</b>         | <input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> <b>[Y]</b> Grade B: Minor language polishing<br><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 type="checkbox"/> Accept (General priority)<br><input checked="" type="checkbox"/> <b>[Y]</b> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection                                                                                                                                               |
| <b>Re-review</b>                | <input checked="" type="checkbox"/> <b>[Y]</b> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                               |
| <b>Peer-reviewer statements</b> | Peer-Review: <input checked="" type="checkbox"/> <b>[Y]</b> Anonymous <input type="checkbox"/> Onymous<br>Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> <b>[Y]</b> No                                                                                                                                                                              |

## SPECIFIC COMMENTS TO AUTHORS

This manuscript reviewed the relationship between selenium and The relationship among the diabetes, islets  $\beta$  cell function and insulin resistance, the advices were as follows: 1. Insulin resistance and  $\beta$  Cell function is closely related to inflammation and immunity, and selenium is closely related to the immune system, so the authors should review the literature and comment in this regard 2. Clinical research on the relationship between selenium and treatment of diabetes should be included

## PEER-REVIEW REPORT

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

**Manuscript NO:** 80246

**Title:** The role of selenium in type 2 diabetes, insulin resistance and insulin secretion

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

**Peer-review model:** Single blind

**Reviewer's code:** 02533234

**Position:** Peer Reviewer

**Academic degree:** PhD, 博士

**Professional title:** Professor, 教授

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

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

**Manuscript submission date:** 2022-09-20

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-10-06 00:32

**Reviewer performed review:** 2022-10-06 08:26

**Review time:** 7 Hours

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Scientific quality</b>         | <input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good<br><input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish                                                                                                                                                                                                                 |
| <b>Judgment by peer reviewers</b> | Does this manuscript meet the code of ethics standards?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important novelty?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript have important creativity or innovation?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Does this manuscript use reliable research methods? |

|                                 |                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 | <input type="checkbox"/> [41] Yes <input type="checkbox"/> [40] No<br>Are the manuscript-accompanying data and figures authentic?<br><input type="checkbox"/> [51] Yes <input type="checkbox"/> [50] No<br>Does this manuscript make scientifically significant conclusions?<br><input type="checkbox"/> [61] Yes <input type="checkbox"/> [60] No |
| <b>Language quality</b>         | <input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing<br><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)<br><input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection                                                                                                                |
| <b>Re-review</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                                                                                                                                                |
| <b>Peer-reviewer statements</b> | Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous<br>Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                          |

## SPECIFIC COMMENTS TO AUTHORS

This manuscript reviewed the the role of selenium in type 2 diabetes and the complex interplay between selenoproteins and insulin pathways. The conclusion is a U-shaped dose-dependent effect between selenium exposure and type 2 diabetes, and selenium supplements should be taken with caution. 1. Manuscript should be further focused on the selenium, selenoproteins, and type 2 diabetes, insulin resistance and  $\beta$ -cell secretory function, especially the evidences of selenium exposure and type 2 diabetes by different designs, overall selenium exposure in the world. 2. 1.1 and 1.2 could be presented briefly.