

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Biological Chemistry

**Manuscript NO:** 55540

**Title:** The current understanding of glucose transporter 4 expression and functional mechanisms

**Reviewer's code:** 02446514

**Position:** Peer Reviewer

**Academic degree:** PhD

**Professional title:** Academic Research, Professor

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

**Author's Country/Territory:** United States

**Manuscript submission date:** 2020-06-26

**Reviewer chosen by:** Xiao-Quan Yu (Quit in 2020)

**Reviewer accepted review:** 2020-07-16 23:08

**Reviewer performed review:** 2020-07-20 15:40

**Review time:** 3 Days and 16 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <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) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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#### **SPECIFIC COMMENTS TO AUTHORS**

The authors did a general review of the literature on the problem they presented. However, I found innecessary to pointed out the number of articles revised, instead, they must show critically the actual knowledge and future directions. It is not clear which is the interest in the methodology, if the results obtained with are not explained. Therefore, also the conclusion is not clear. Moreover the figure showing the mechanism of Glut 4 translocation is quite general. Results: the text is poor and tables indicate the same information.

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Biological Chemistry

**Manuscript NO:** 55540

**Title:** The current understanding of glucose transporter 4 expression and functional mechanisms

**Reviewer's code:** 02446061

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Professor, Research Scientist

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

**Author's Country/Territory:** United States

**Manuscript submission date:** 2020-06-26

**Reviewer chosen by:** Le Zhang

**Reviewer accepted review:** 2020-07-17 22:56

**Reviewer performed review:** 2020-07-20 17:48

**Review time:** 2 Days and 18 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 <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <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) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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#### **SPECIFIC COMMENTS TO AUTHORS**

The manuscript content is adequate and attractive. A revision of the entire manuscript to edit some punctuation, grammar and typo errors is desirable. For example: Macronutrients and macronutrients... I suggest to reduce the introduction and, please, highlight the innovative content as this transporter is often revised. As in: Vargas E, Podder V, Carrillo Sepulveda MA. Physiology, Glucose Transporter Type 4 (GLUT4). In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2020. Klip A, McGraw TE, James DE. Thirty sweet years of GLUT4. J Biol Chem. 2019;294(30):11369-11381. doi:10.1074/jbc.REV119.008351 (included in your manuscript) On the conclusions section please include other attractive findings (not just involving the CNS). I suggest you to additional comments regarding the structure. If well just the crystal are for other GLUT on the PDB, some recent findings are attractive.

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Biological Chemistry

**Manuscript NO:** 55540

**Title:** The current understanding of glucose transporter 4 expression and functional mechanisms

**Reviewer's code:** 03724944

**Position:** Peer Reviewer

**Academic degree:** BSc

**Professional title:** Chief Technician

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

**Author's Country/Territory:** United States

**Manuscript submission date:** 2020-06-26

**Reviewer chosen by:** Xiao-Quan Yu (Quit in 2020)

**Reviewer accepted review:** 2020-07-16 09:53

**Reviewer performed review:** 2020-07-23 11:56

**Review time:** 7 Days and 2 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 <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <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) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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#### **SPECIFIC COMMENTS TO AUTHORS**

World Journal of Biological Chemistry Review of Manuscript NO: 55540 Title: The current understanding of glucose transporter 4 expression and functional mechanisms

The manuscript highlights the methods and materials used in recent studies to investigate the expression of GLUT4 in the skeletal muscle, adipose tissue, heart and brain. The review is interesting but in my opinion requires some changes that I indicate below:

- 1) The part concerning "Carbohydrate digestion and absorption" could be eliminated.
- 2) All descriptions relating to the search in pubmed could be deleted.
- 3) All tables must be more concise because in the current form they are difficult to read.
- 4) In the text, instead of indicating the methods and antibodies used (already visible in the tables), it may be more appropriate to highlight the results obtained, and compare them in the "summary and perspectives"

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** World Journal of Biological Chemistry

**Manuscript NO:** 55540

**Title:** The current understanding of glucose transporter 4 expression and functional mechanisms

**Reviewer's code:** 02446061

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Professor, Research Scientist

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

**Author's Country/Territory:** United States

**Manuscript submission date:** 2020-06-26

**Reviewer chosen by:** Jia-Ping Yan

**Reviewer accepted review:** 2020-08-24 15:58

**Reviewer performed review:** 2020-08-24 17:08

**Review time:** 1 Hour

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <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) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS



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Thank you for considering the comments and suggestions. The manuscript is improved.