

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Transplantation

**Manuscript NO:** 42034

**Title:** Immunometabolism: a target for the comprehension of immune response toward transplantation

**Reviewer's code:** 03742333

**Reviewer's country:** United Kingdom

**Science editor:** Ying Dou

**Date sent for review:** 2018-09-13

**Date reviewed:** 2018-09-13

**Review time:** 22 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 type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input 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 type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" 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 read with great interest the manuscript entitled "Immunometabolism: a target for the comprehension of immune response toward transplantation". In this minireview the authors explore how the modulation of the metabolism of immune cells can affect their

function and, consequently, interfere on transplant outcomes. The manuscript is well written and reads well, however it may benefit from the amendments described below. Major comments: 1. The aim of the review is not clearly stated along the document. The inclusion of a clear statement at the end of the introduction may clarify the objective of the review to readers. Hence, it would make the manuscript easier to be followed. 2. The second session of the manuscript is entitled “The crosstalk between cell metabolism and immune response”, however it predominantly focusses on description of cellular metabolic pathways. The crosstalk between this and immune response is not explored in detail. The title of the session or its content should be amended accordingly. 3. Figure 1, legend. Please expand the title of the figure. “Six general metabolic pathways” is used without any other context. For example, “Six metabolic pathways highly relevant for immune cells functions”. 4. First paragraph, session “Metabolic reprogramming of immune cells and transplantation”, please clarify which important stress pathways can be activated. Additionally, the paragraph has only one phrase. Splitting it in 2 phrases, at least, would facilitate the interpretation. 5. Last paragraph, session “Metabolic reprogramming of immune cells and transplantation”, In which context it was demonstrated that the combined treatment promoted allograft survival? Was it an animal model? Was it a transplant model? 6. In the conclusion, it is said that there are a “handful of studies which have specifically targeted metabolic pathways to promote transplant tolerance”. Those are not easily identifiable throughout the manuscript. To enhance the comprehensiveness of the paper, I would suggest to authors create a table detailing the existing studies, the metabolic pathways targeted and the evidence of tolerance/ immune cells affected. Minor comments: 1. First paragraph, session “The crosstalk between cell metabolism and immune response”, the abbreviation ATP is introduced without any definition. Please define the abbreviation on the first use. For example, “adenosine triphosphate (ATP)”. 2. Last paragraph, session “Metabolic



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reprogramming of immune cells and transplantation”, one bracket is inserted probably by mistake (“immune) ameliorated”), please remove it. Additionally, between references 31, 32 and 33 the word “regulation” is left alone and out of context, please amend it.

#### **INITIAL REVIEW OF THE MANUSCRIPT**

##### ***Google Search:***

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

##### ***BPG Search:***

- ☐ The same title
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- ☐ Plagiarism
- ☐ No

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Transplantation

**Manuscript NO:** 42034

**Title:** Immunometabolism: a target for the comprehension of immune response toward transplantation

**Reviewer's code:** 04382473

**Reviewer's country:** United States

**Science editor:** Ying Dou

**Date sent for review:** 2018-09-13

**Date reviewed:** 2018-09-15

**Review time:** 22 Hours, 2 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input checked="" type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input checked="" type="checkbox"/> Accept	<input 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 type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

an excellent and timely review article , a pleasure to review

### INITIAL REVIEW OF THE MANUSCRIPT



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*BPG Search:*

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## PEER-REVIEW REPORT

**Name of journal:** World Journal of Transplantation

**Manuscript NO:** 42034

**Title:** Immunometabolism: a target for the comprehension of immune response toward transplantation

**Reviewer's code:** 00502954

**Reviewer's country:** Canada

**Science editor:** Ying Dou

**Date sent for review:** 2018-09-13

**Date reviewed:** 2018-09-19

**Review time:** 17 Hours, 6 Days

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:
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			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

This mini review briefly introduced metabolism and its impact on immune system. I think this is a very interesting review and it will help reader to understand the impact of metabolism on prevention and treatment strategies in transplantation. However, some



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aspects of this manuscript should be improved. 1. Authors should provide one or two illustrations for the crosstalk between metabolism and immune responses, particularly focusing on T cell. It will be helpful for reader to understand this field 2. Authors should discuss more about targeting few candidate metabolic molecules that play important roles in organ transplantation as the title stated. 3. Few recent publications in T cell metabolism should be cited.

#### INITIAL REVIEW OF THE MANUSCRIPT

##### *Google Search:*

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- ☐ Plagiarism
- ☐ No

##### *BPG Search:*

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- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No