

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**Manuscript NO:** 54909

**Title:** Role of Mesenchymal Stem Cells Derived Extracellular Vesicles in Autoimmunity:  
A Systematic Review

**Reviewer's code:** 03814168

**Position:** Editorial Board

**Academic degree:** PhD

**Professional title:** Assistant Professor

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

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

**Manuscript submission date:** 2020-03-04

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2020-03-06 08:59

**Reviewer performed review:** 2020-03-06 14:11

**Review time:** 5 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 Grade E: Do not publish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 type="checkbox"/> Grade B: Minor language polishing <input checked="" 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 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 overall concept of the manuscript is very informative. Title reflect the subject of the manuscript. Abstract is in the summarized form and key words relate to the topic. In introduction, manuscript needs to be describe some other chronic autoimmune disease, more background related to the topic, recent development and significance of the study. In page 4, line 25, check the spelling of urine.

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**Manuscript NO:** 54909

**Title:** Role of Mesenchymal Stem Cells Derived Extracellular Vesicles in Autoimmunity:  
A Systematic Review

**Reviewer's code:** 02535953

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Professor

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

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

**Manuscript submission date:** 2020-03-04

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

**Reviewer accepted review:** 2020-04-14 08:17

**Reviewer performed review:** 2020-04-15 02:58

**Review time:** 18 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 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 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

## **SPECIFIC COMMENTS TO AUTHORS**

The manuscript entitled “Role of Mesenchymal Stem Cells Derived Extracellular Vesicles in Autoimmunity: a Systematic Review” describes and focus on the identification, characteristics, immunomodulatory function and underlying mechanism of MSC-EVs in autoimmunity related diseases. Mesenchymal stem cells (MSCs) have been reported to possess immune regulatory effects in innate and adaptive immune reactions. MSCs can mediate intercellular communications by releasing extracellular vesicles (EVs), which deliver functional molecules to targeted cells. MSCs derived EVs (MSC-EVs) confer altering effects on many immune cells, including T lymphocytes, B lymphocytes, natural killer (NK) cells, dendritic cells (DCs) and macrophages. A large number of studies have suggested MSC-EVs participate in regulating autoimmunity related diseases. Many validated EVs-delivered molecules have been identified as key biomarkers, such as proteins, lipids, and nucleotides. Some EVs-encapsulated functional molecules can serve as promising therapeutic targets particularly for autoimmune disease. It suggests authors to provide the followings for easy comprehension. (i) Providing the table for presenting the effect of MSC-EVs on the immune system (MSC source / Target cell / MSC-EVs effect / Refences.....) (ii) Providing the table for presenting the MSC-EVs derived molecules (factors) and/or mechanisms that act as a role in the immune modulation. (iii) Providing the table for presenting the potential therapeutic application of MSC-EVs for disease models.

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**Manuscript NO:** 54909

**Title:** Role of Mesenchymal Stem Cells Derived Extracellular Vesicles in Autoimmunity:  
A Systematic Review

**Reviewer's code:** 03670299

**Position:** Editorial Board

**Academic degree:** BPharm

**Professional title:** Professor, Senior Researcher

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

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

**Manuscript submission date:** 2020-03-04

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

**Reviewer accepted review:** 2020-04-14 06:15

**Reviewer performed review:** 2020-04-16 10:31

**Review time:** 2 Days and 4 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 checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input 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

## **SPECIFIC COMMENTS TO AUTHORS**

The topic of the regulation of autoimmunity by mesenchymal stem cells derived extracellular vesicles is interesting and actual. Several authors investigated this topic discussing the specific role related to different diseases. The novelty of this manuscript is the analysis of extracellular vesicles and their involvement in several aspects of immunomodulation of immune cells. It is necessary a minor revision of the text giving more attention to their importance for different disease. Additional references should be added (Carl Randall Harrell et al., *Cells* 2019, 8, 1605; doi:10.3390/cells8121605; Vito Pistoia and Lizzia Raffaghello, *International Immunology*, Vol. 29, No. 2, pp. 49–58 doi:10.1093/intimm/dxx008. Moreover, should offer to readers some hypothesis regarding their possible use in therapeutic strategies. Moreover, the authors should prepare a table describing the factors and signaling molecules stimulated by mesenchymal stem cells derived extracellular vesicles and modify the figures to offer a more complete scenario on data.