

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 53645

Title: An overview of noncoding RNAs involved in the osteogenic differentiation of periodontal ligament stem cells

Reviewer's code: 02537336

Position: Peer Reviewer

Academic degree: MD

Professional title: Physiotherapist

Reviewer's country: Australia

Author's country: China

Manuscript submission date: 2019-12-30

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-01-03 06:29

Reviewer performed review: 2020-01-19 07:48

Review time: 16 Days and 1 Hour

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 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

This is a comprehensive review on the role of ncRNAs in the osteogenic differentiation of periodontal ligament stem cells. The manuscript contains useful information that may be helpful to the researchers in the field of periodontal diseases, particularly for researchers that are interested in periodontium regeneration. However, the manuscript would improved if the following revisions can be made: 1. The language should be thoroughly revised by a native English speaker or a professional language service; 2. Tables 1-2 are too busy. The authors should use landscape; the contents are too much, should be made more concise; 3. Similarly, Figures 1, 2 are too busy. The authors may consider using a particular ncRNA to illustrate the regulatory mechanisms of ncRNAs . 4. Fig. 3 should pinpoint a few biological consequences of the network, rather than just listing the possible pathways; 5. A summary digram illustrating how some of the key ncRNAs can be used to regulate the PDLSCs and then be used in the regeneration of periodontium should be provided.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

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

BPG Search:

- ☐ The same title
- ☐ Duplicate publication



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[] Plagiarism

[Y] No

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 53645

Title: An overview of noncoding RNAs involved in the osteogenic differentiation of periodontal ligament stem cells

Reviewer's code: 03811054

Position: Editorial Board

Academic degree: PhD

Professional title: Professor

Reviewer's country: Egypt

Author's country: China

Manuscript submission date: 2019-12-30

Reviewer chosen by: Ying Dou

Reviewer accepted review: 2020-02-05 12:05

Reviewer performed review: 2020-02-09 20:05

Review time: 4 Days and 7 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 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



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SPECIFIC COMMENTS TO AUTHORS

There are minor grammatical errors

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

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BPG Search:

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- ☐ No

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 53645

Title: An overview of noncoding RNAs involved in the osteogenic differentiation of periodontal ligament stem cells

Reviewer's code: 02446223

Position: Editorial Board

Academic degree: PhD

Professional title: Assistant Professor, Postdoctoral Fellow

Reviewer's country: Italy

Author's country: China

Manuscript submission date: 2019-12-30

Reviewer chosen by: Ying Dou

Reviewer accepted review: 2020-02-04 11:27

Reviewer performed review: 2020-02-10 09:17

Review time: 5 Days and 21 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 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



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SPECIFIC COMMENTS TO AUTHORS

The present review gives a comprehensive overview of noncoding RNA, in particular those involved in some way with osteogenic differentiation of a particular class of stem cells, the periodontal ligaments derived stem cells. The review is very well written and exhaustive, with tables and figures which help the reader to understand and outline the argument. Both title and abstract fully reflect the manuscript subject.

INITIAL REVIEW OF THE MANUSCRIPT

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- ☐ No

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 53645

Title: An overview of noncoding RNAs involved in the osteogenic differentiation of periodontal ligament stem cells

Reviewer's code: 02446120

Position: Editorial Board

Academic degree: PhD

Professional title: Associate Professor, Doctor, Research Scientist

Reviewer's country: Argentina

Author's country: China

Manuscript submission date: 2019-12-30

Reviewer chosen by: Ying Dou

Reviewer accepted review: 2020-02-04 11:01

Reviewer performed review: 2020-02-17 09:39

Review time: 12 Days and 22 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input 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
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		<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

Comments to the authors The review by Qiu W et al. focusses on the role of non-coding RNA (ncRNA) on regeneration of periodontium during periodontal diseases. So far, little is known about the functions of ncRNA and even less about their roles during regenerative processes of periodontium tissues The finding (by Seo et al.) that there are multipotent stem cells in human PDL (PDLSCs) opens interesting possibilities for repairing these dental tissues. However, up to now, it is unclear how to guide stem cells toward and specific differentiation pathway. The work by Qiu et al, covers these issues gathering information, which is useful, not only for osteogenic differentiation in dental tissues but also for many other regenerative processes during diseases The authors revise the general classification of ncRNA including long ncRNA and small RNA, circular RNA, which is very useful for the general readers, and then they focus on miRNAs, lncRNAs, and circRNAs which have a critical role in osteogenic differentiation. The authors added information gathered from their own laboratory: they highlight the changes in many miRNAs, some of which were increased while others were downregulated in PDLSCs during osteogenic induction. The authors concluded that miRNA may play an important regulatory role in osteogenic differentiation of PDLSCs. Also, the review highlights lncRNAs involved in osteogenic differentiation of pdlscs and transcriptional and Posttranscriptional regulation of lncRNAs in PDLSCs and Epigenetic regulation of lncRNAs in PDLSCs. The information is clearly exposed, the bibliography is helpful and extensive. In general, the review is excellent and provides useful and updated information Minor recommendations In my opinion the paragraph referring to the history of PDLSCS could be significantly shortened

INITIAL REVIEW OF THE MANUSCRIPT



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