

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 67759

Title: Considerations for the clinical use of Stem Cells in Genitourinary Regenerative Medicine

Reviewer's code: 06006082

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Spain

Author's Country/Territory: Canada

Manuscript submission date: 2021-04-30

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-05-01 08:32

Reviewer performed review: 2021-05-07 15:49

Review time: 6 Days and 7 Hours

Scientific quality	<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 Grade E: Do not publish
Language quality	<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
Conclusion	<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
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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

This is an interesting review including information about a up to date topic. Nevertheless the article needs to be shorten and reorganized. In the abstract it should be included the main objective of the review. I think you should include Mesenchymal Stem Cells or Stem Cells as a key word. It would be interesting to include the search algorithm that you use to do this review. ANATOMY, PATHOLOGIES AND CURRENT TREATMENTS part could be deleted to avoid making the article too long. Maybe, you could include only the part of problems related to current treatments. STEM CELL SOURCES FOR UROLOGIC REGENERATIVE MEDICINE: A CONCISE OVERVIEW is too long and should be summarised in one short paragraph. In the introduction you say that your review is focus on studies that have used mesenchymal stem/stromal cells isolated from adipose tissue. Nevertheless, in the Regenerative medicine for kidney you mainly provide information regarding bone marrow derived MSCs and other MSC. Why did you focus on AD-MSCs? I think you included several sources of MSCs and you could delete from the introduction that you focus on AD-MSCs and reorganize these sections. The information explaining MSC secretome or MSC-conditioned medium should be provided in the introduction. The first three paragraph of ADIPOSE TISSUE AS A SOURCE OF THERAPEUTIC CELLS should be deleted or at least summarized. There are two approaches for obtaining stromal/stem cells from adipose tissue (Figure 2)... This paragraph and the next one should be also summarized. I don't think the INDUCED PLURIPOTENT STEM CELLS is necessary in this review. You could summarize this topic in one or two sentences. Table 2, 3 and 4. The first author's name should be included in the table in the first column or in the year column. Other option is to provide the reference number as in table 1. It would be interesting to include information regarding ongoing clinical.

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 67759

Title: Considerations for the clinical use of Stem Cells in Genitourinary Regenerative Medicine

Reviewer's code: 04247363

Position: Peer Reviewer

Academic degree: DDS, PhD

Professional title: Associate Professor

Reviewer's Country/Territory: France

Author's Country/Territory: Canada

Manuscript submission date: 2021-04-30

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-05-03 15:00

Reviewer performed review: 2021-05-12 15:36

Review time: 9 Days

Scientific quality	<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
Language quality	<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
Conclusion	<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
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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

Dear authors, We have read with interest your (long) manuscript. The review work is well presented and provides a clear overview of the topic of Regenerative Medicine applications for genitourinary therapy. Our main concern is that the manuscript is long and somehow difficult to follow. In our opinion, the objectives of the review should be re-written, and focused on the key elements presented. We hardly understand the purpose of the paragraph dealing with iPS. It brings more confusion than explanation (especially after explaining that ASC is a more easily accessible source of Stem Cells) The wide section presenting Adipose derived cells makes sense if you consider clinical applications (you developed first the in vitro/in vivo use of BMSC; then explained that some clinical trials are on process with ASC). Our suggestion is to target Regenerative Medicine for Genitourinary Therapy/Applications/Purpose, as already clearly presented in the 'Introduction'. And remove the parts with iPS. Moreover, the title claims "Stem Cells for..." but, in fact, the manuscript is about Regenerative Medicine, and guides us towards to the problematic of Stem cells use (GMP conditions) and innovative Self Assembly Approach. And you also develop the concept of Secretome (as a therapeutics without cell grafting) A modification of the title would be interesting to enlighten the clinical targets. The manuscript could be structured (reorganized) as: > Introduction 1/ Anatomy, Pathologies and Current Treatments (Kidney / Bladder / ureters and urethra) 2/ Regenerative Strategies Using Stem cells (introduced by your shorten paragraph "Stem Cell Sources for Urologic Regenerative Medicine") (Kidney / Bladder / ureters and urethra) 3/ Towards clinical Applications: a- Adipose Tissue as a source of Therapeutic Cells b- Self Assembly Approach > Conclusion & Perspectives : Considerations on the use of SC from various origins

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 67759

Title: Considerations for the clinical use of Stem Cells in Genitourinary Regenerative Medicine

Reviewer's code: 05158066

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Academic degree: PhD

Professional title: Full Professor, Professor

Reviewer's Country/Territory: Serbia

Author's Country/Territory: Canada

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Scientific quality	<input checked="" type="checkbox"/> Grade A: Excellent <input 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
Language quality	<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
Conclusion	<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
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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 "Stem Cells for Genitourinary Regenerative Medicine" is a review article on the use of stem cells in urology. At the beginning of the manuscript, general facts about anatomy, pathologies and current treatments of kidneys, bladder, ureters and urethra, as well as problems related to current treatments are given. Much of the manuscript is devoted to regenerative medicine strategies using stem cells for kidney, bladder, ureters and urethra. The widest space is given to the chapter "Adipose tissue as a source of therapeutic cells" in which the part "ASC-based therapies and tissue engineering approaches for treating urogenital-related diseases/pathologies" is especially widely covered. At the end of the article, a brief overview of the application of induced pluripotent stem cells and the self-assembly approach for genitourinary tissue engineering is given. A serious approach to this paper also presents a concluding section with concise perspectives and limitations in the use of stem cells. With a large number of references relevant to the field and appropriate by year, with two highly illustrative figures and four systematized tables, this review paper is exceptional for the field it deals with. Based on scientific quality and language quality, the manuscript should be accepted for publication in the submitted form.