

ESPS Peer-review Report

Name of Journal: World Journal of Orthopedics

ESPS Manuscript NO: 10691

Title: Regeneration of the Anterior Cruciate Ligament - Current Strategies in Tissue Engineering

Reviewer code: 00736909

Science editor: Fang-Fang Ji

Date sent for review: 2014-04-15 19:55

Date reviewed: 2014-04-23 03:39

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input checked="" type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input checked="" type="checkbox"/> Grade D (Fair)		BPG Search:	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

The paper reviews tissue engineering techniques for ACL reconstruction in an interesting manner. It is an important contribution. Please require authors to submit PDF's with line numbers. The lack of line numbers makes reviewing difficult and I apologize for the trouble my location system might cause the authors. Introduction: End of first paragraph: ACL reconstruction does not affect OA development. Best delete sentence. If not, make the above reservation. Same comment for the last sentence in the second paragraph. You may not justify the need for regeneration of an ACL on preventing OA, because based on data available it is more than likely that even if regeneration were successful, OA will develop. Up to the last sentence in the second paragraph you have made a clear enough point for the need of regeneration (even without costs and availability of allografts). 4th paragraph (?), The disruption of the synovial sheath does not allow that a local hematoma is formed which is known to be crucial for the onset of the inflammatory response that would stimulate primary healing [11]. Rephrase: ...does not allow hematoma formation crucial... Recently, Teuschl et al. [36] could demonstrate the feasibility of a procedure to remove sericin from a compact and highly-ordered raw Bombyx mori silk-fibre scaffold using borate buffer based solutions. Rephrase: Teuschl et al. [36] successfully removed sericin from a compact and highly-ordered raw Bombyx mori silk-fibre scaffold using borate buffer based solutions. End of chapter on Scaffolds for ACL regeneration: It should be stated that while advances in the 3D reconstruction of the ligament may be important, the current success of reconstruction using single strand or double strand methods is very reasonable, so this is not the major issue. Future Directions in ACL Regeneration/"Any type of regenerated ACL that would require a prolonged period of immobilization or non-weight bearing

most probably would not represent a feasible option for the orthopaedic surgical community." I don't think the blame is to be put on orthopaedists. If an athlete loses more than one season he is likely to retire. This statement should be rephrased to say that until regenerate ACL can compare with the current relatively successful autograft methods, patients are likely to prefer the autograft. As most surgeons don't require immobilization after reconstruction surgery, immobilization is likely to be unacceptable. Paragraph starting "Another important aspect that will need consideration": it is not clear to me why this is different from what is discussed in the previous paragraph. Last sentence before Conclusion: 1) it should be stated that this is an animal model, 2) the statement exaggerates: the article reports a lower rate of osteoarthritis after a year. Please correct. As osteoarthritis is not common, a year after ACL injury in humans, this model is problematic. Please rephrase the complete referral to this paper accordingly. There is no discussion on how the various cells or mediators can be localized on the graft that is in the knee joint, full of fluid. When is this important and how is this managed? The authors are clearly not native english speakers. The paper needs considerable grammer corrections and simplpfying of sentences. I gave two examples above. The use frequent use of "could demonstrate" is another example.

ESPS Peer-review Report
Name of Journal: World Journal of Orthopedics

ESPS Manuscript NO: 10691

Title: Regeneration of the Anterior Cruciate Ligament - Current Strategies in Tissue Engineering

Reviewer code: 00646704

Science editor: Fang-Fang Ji

Date sent for review: 2014-04-15 19:55

Date reviewed: 2014-06-06 11:28

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input checked="" type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)		BPG Search:	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input checked="" type="checkbox"/> Minor revision
		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

COMMENTS TO AUTHORS

Overall, this is a well written paper on recent advances in respect to ACL tissue engineering. I have a few comments below: -The paper is well-organized but its flow could be improved by better connections between paragraphs -In page 4 the authors describe the disadvantages of autografts to justify the need for ACL tissue engineering. They should do the same for synthetic grafts that were popular in the 1980's and demonstrated serious complications. They should also discuss current synthetic grafts such as the LARS. -page 4: tendonitis is misspelled -page 4, towards the end: the authors use the high incidence of knee OA after ACL tear to justify the need for ACL tissue engineering. However, knee OA can develop not only because of the limitations of the current grafts but also by the initial joint trauma and the trauma caused by surgery. This needs to be discussed -On page 6 and page 10 the authors incorrectly use "it's". It should be "its" as it is possessive in this sentences -Page 13: "In a recent randomised trial, bio-enhanced ACL repair had equal results compared with ACL reconstruction..." please specify if this study was done on humans or animals -Figure legends: avoid the use of abbreviations

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input checked="" type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input checked="" type="checkbox"/> Accept
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		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

Authors reviewed the current research efforts and highlighted promising tissue engineering strategies. They discussed scaffolds, cell sources, gene-theapeutic approaches and growth factors, mechanical stimulation for ACL regeneration. In the end, they discussed the future directions in ACL regeneration. Overall, authors did good job in providing facts from literature. It will be ideal if they can list challenges we are facing in each area, provide a sketch illustrating the relationships between four different areas, and their roles in ACL regeneration.