

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Medical Genetics

ESPS manuscript NO: 24321

Title: Chitosan DNA nanoparticles for oral gene delivery

Reviewer's code: 02934706

Reviewer's country: United States

Science editor: Jin-Xin Kong

Date sent for review: 2016-01-18 18:28

Date reviewed: 2016-01-31 05:22

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

In this review, the authors discussed the challenges facing oral administration of chitosan DNA nanoparticles, including various extracellular and intracellular barriers of oral gene delivery and how to overcome the hurdles using chitosan and chitosan-modified nanotechnologies. General Concerns: 1. The figure captions should be revised to better explain the main point of each figure. 2. The texts in figures are too small to read. Specific Concerns: 1. In Figure 1, the pH in stomach should be 1-2 or 1-3 instead of exactly 1.7; In Figure 2, we can find out the change of nanoparticles' charge in different pH, but it is hard to indicate the stability and size. Getting the stability and size data from references and shown in a table with this figure would be better. 2. On page 5, line3, combined with a chemical structure of chitosan would be helpful for this description. 3. On page 11, line 3, 2-3 original references on proton sponge effect should be given here for better understanding of this theory for readers from different disciplines. 4. On page 11, line 5, it should be H2O not H20.

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Medical Genetics

ESPS manuscript NO: 24321

Title: Chitosan DNA nanoparticles for oral gene delivery

Reviewer's code: 01001158

Reviewer's country: Canada

Science editor: Jin-Xin Kong

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

Lian-Sheng Ma, President and Company Editor-in-Chief World Journal of Medical Genetics 10.02.2016 Article type: Review Title: Chitosan nanoparticles for oral gene delivery Corresponding Author: G. Hortelano, PhD Order of Authors: Bhavika Patel, K Nithin Vignesh, Gonzalo Hortelano The review entitled Chitosan nanoparticles for oral gene delivery represents an accurate and up to date assessment of the field. This manuscript describes the use of chitosan as a DNA gene carrier for oral gene delivery. Generally, the review has been described in a good manner. However, the review is similar to many others than have been written in this area over the past year. Several modifications of text need to be performed before this manuscript will be accepted. Specific comments: 1) I suggest that authors to reorganize the abstract. The description of ' A good example of this is the hype felt in 1989 after the cloning of the cystic fibrosis gene, a very common and devastating genetic disease that destroys lung function. It was assumed that the inhalation of the responsible gene would lead to immediate restoration of lung function and cure' is too much speculation; need to add some references to confirms. Again, abstract talked about unwanted immune response caused by gene deliver. But in the review, the authors wrote more in the field of



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capacity of chitosan to induce desired immune response. 2) In conclusion, the authors wrote 'oral gene therapy has been explored for the treatment of cancer by delivery transgenes that code for 'suicide proteins' in cancer cells'; I did not find any description about this in the text of review. 3) So the authors should concentrate on the emphasis of extracellular and intracellular barriers of oral gene delivery and strategies how to overcome these barriers by using chitosan and chitosan-modified nanoparticle. 4) By the way, some schema or tables or figures may to add in the text to enforce the author's ideas.