

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Virology*

**Manuscript NO:** 76337

**Title:** Mucosal COVID-19 vaccines - risks, benefits and control of the pandemic

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05687852

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Doctor, Professor

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

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

**Manuscript submission date:** 2022-03-13

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-03-15 04:30

**Reviewer performed review:** 2022-03-20 08:56

**Review time:** 5 Days and 4 Hours

<b>Scientific quality</b>	<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 Grade E: Do not publish
<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [ ] Yes [Y] No

## SPECIFIC COMMENTS TO AUTHORS

This is an interesting and well documenting as well as discussing the mucosal SARS-CoV-2 vaccine, such as one targeting the nasal or oral mucosa, would be ideal if it could also be demonstrated to be safe. It is also fascinating to see if IN administration of SARS-CoV-2 mRNA vaccines may induce resident memory T cells and B cells and protect the lungs and gut. Recent and ongoing studies highlight the importance of understanding local immune responses to SARS-CoV-2 and suggest that research on mucosal, natural, and vaccine-mediated immunity to SARS-CoV-2 is of tremendous translational and therapeutic value. Albeit, this current review provide update knowledge in coronavirus pandemics related fields. I still have some minor suggestions.

1, The paper is written in a professional style, and it was a pleasure to read it. Very interesting! However, it wouldf be much better if the authors can provide some tables for this review paper so that the reader can easily catch the concept. Meanwhile, Figure 1 is also highly professional, but the authors should guide the readers to the meaning of the images appropriately; otherwise, it is likely to cause misunderstandings. Therefore, I suggest that the author consider revising these figure legends again.

2, Mucosal vaccines against SARS-CoV-2 are incredibly challenging to develop and confirm their safety. However, they will offer the ability to trigger stable, protective immune responses at the sites of pathogenic infection. In addition to SARS-CoV-2, it would be much better if the author can also discuss mucosal vaccines for other types of coronavirus including MERS, and SARS-CoV...etc. (PMID: 15660214, 33918958, 34176764, 32615317, PMID: 35215783).

3, The author needs to follow the “Guidelines For Authors” and edit the format of the references for the manuscript (<https://www.wjgnet.com/bpg/gerinfo/204>). For example, Reference No 53, ...in



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Publishing  
Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)  
**https://**[www.wjgnet.com](http://www.wjgnet.com)

Denmark: nationwide retrospective cohort study. Open Forum Infect Dis 2016; 3:XXX-XX. Please correct XXX during revision.

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**Reviewer's code:** 06011774

**Position:** Peer Reviewer

**Academic degree:** MBBS

**Professional title:** Doctor

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

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

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**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-03-26 16:13

**Reviewer performed review:** 2022-04-05 15:44

**Review time:** 9 Days and 23 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
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<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [ ] Yes [Y] No

## SPECIFIC COMMENTS TO AUTHORS

Dear authors. It has been a pleasure to review your manuscript. The topic discussed interest me greatly and I found the article informative. I hope my comments would be useful to your team to improve the manuscript for publication. Abstract - IN is not a common abbreviation for intranasal even in current literature. Suggest to spell it out - Additional illness-> Did you mean side /adverse effects? - “IN vaccines based on the previously successfully used IN vaccines in mankind's history” - what are you trying to convey with this sentence? Core tip - Multiple sentence structure errors and improper usage of words (e.g. “...regions with unavailable healthcare...”)(...give hope for preventing infections additional to reduced transmission....) Manuscript body - General language much improved. Only few errors (e.g. They examined the incidence of children (incidence of infection among children?) due to infectious diseases depending on whether the last vaccine they received.) Please correct spelling errors and remove errors from past editing (e.g. noted ). placed before the sentence in page 12 second last paragraph, some brackets not removed - ....males but not in females [82]. (). Several other studies..... ) - Standardization of font styles throughout manuscript is required -> pg 16-17 font is clearly different - Several repetitions in points (e.g. needle use in vaccination) which could be put together instead of mentioning again. - More discussion and references on benefits of intranasal vaccination would help to increase the scientific value of this paper (e.g. the point on oral vaccines being cost effective through bypassing antigen purification was intriguing. Expanding this point would be interesting) - Several sentences were long-winded and could be shortened considerably to reduce the word count of the manuscript and improve readability References - Needs substantial correction. Format issues and improper references (e.g. 9. Clinical trials website??, to

name a few) \*overall, the article was pulled down mainly by the language quality. Although it is acceptable once the necessary corrections are made, it would be better if it was passed to an English editor involved in our field of research as offered by most publishing companies. Thank you.