

PEER-REVIEW REPORT

Name of journal: World Journal of Virology

Manuscript NO: 62103

Title: A Bottom-Up Analysis of Emergent Properties of N-Acetylcysteine as an Adjuvant Therapy for COVID-19

Reviewer's code: 03477174

Position: Peer Reviewer

Academic degree: MD

Professional title: Associate Professor

Reviewer's Country/Territory: Turkey

Author's Country/Territory: United States

Manuscript submission date: 2020-12-29

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-12-29 20:58

Reviewer performed review: 2021-01-02 05:46

Review time: 3 Days and 8 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 Grade E: Do not publish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 type="checkbox"/> Yes <input checked="" 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

1. The authors have nicely compiled NAC's views on COVID-19 treatment. But there are already quite a lot of articles on this subject in the literature. Authors should make a difference in this article from other articles. Below are a few articles in the literature where NAC has been tried in the treatment of COVID-19. Authors can enrich their articles by adding these articles to their own articles. doi: 10.1097/MD.00000000000022577
doi: 10.1093/cid/ciaa1443. doi: 10.1016/j.ejphar.2020.173494. doi:
10.1016/j.clim.2020.108544 doi: 10.1080/15563650.2020.1758327 doi:
10.3390/antiox9070624. 2. References 6 and 10 are the same. Some references are not listed on pubmed.

PEER-REVIEW REPORT

Name of journal: World Journal of Virology

Manuscript NO: 62103

Title: A Bottom-Up Analysis of Emergent Properties of N-Acetylcysteine as an Adjuvant Therapy for COVID-19

Reviewer's code: 05338743

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: United States

Manuscript submission date: 2020-12-29

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2020-12-31 01:14

Reviewer performed review: 2021-01-12 01:30

Review time: 12 Days

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 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 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

COVID-19, which caused by SARS-CoV-2 infection is still spreading all over the world. Economical and effective medicine is urgently needed to improve COVID-19 patients' outcome. Here, authors comprehensively summarized the antioxidant reagent NAC in the potential use of COVID-19 treatment. It will be useful for researchers and clinicians in mechanism investigation or clinical application. I have some suggestions for this manuscript.

1. The format need rearrangement

1) A key point of this manuscript is COVID-19, so, authors should create special column to describe the pathogenic mechanisms, treatment strategies, and currently questions of COVID-19.

2) According the title, authors should pay more attention to prophylactic application and drug combination therapy.

2. Concise content is needed in the manuscript. There are redundant repetitive description about the adaptation diseases of NAC in the manuscript. And in my opinion, the "MECHANISM OF ACTION" and "BIOLOGICAL ACTIVITIES AND HEALTH BENEFITS" section should be combined. The "SAFETY AND DOSES" and "ADVERSE EFFECTS AND CONTRAINDICATIONS" section should be combined.

3. Other minor concerns

1) Figure 1 should be divided into A and B, which demonstrate structure/activation and therapeutic mechanisms, respectively. Each section will be more plenary.

2) In table 1, the ongoing clinical trial should include beginning and ending time. Moreover, whether the trial contain prophylactic application and/or drug combination therapy information should be included.

3) Little information was provided about small amount preparation and mass production of NAC in "ANALYSIS AND EXTRACTION" section.

4) What is the abbreviation "NACA" mean in "STORAGE" section?

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Virology

Manuscript NO: 62103

Title: A Bottom-Up Analysis of Emergent Properties of N-Acetylcysteine as an Adjuvant Therapy for COVID-19

Reviewer's code: 05338743

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: United States

Manuscript submission date: 2020-12-29

Reviewer chosen by: Le Zhang

Reviewer accepted review: 2021-01-29 08:12

Reviewer performed review: 2021-02-01 02:14

Review time: 2 Days and 18 Hours

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 checked="" type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
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



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

All my issues have been addressed