PEER-REVIEW REPORT

**Name of journal:** World Journal of Biological Chemistry

**Manuscript NO:** 82942

**Title:** In silico evidence of Remdesivir action in the blood coagulation cascade modulation in the COVID-19 treatment

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

**Peer-review model:** Single blind

**Reviewer’s code:** 03582196

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Director, Professor

**Reviewer’s Country/Territory:** China

**Author’s Country/Territory:** Brazil

**Manuscript submission date:** 2022-12-30

**Reviewer chosen by:** Yu-Lu Chen

**Reviewer accepted review:** 2023-02-17 02:13

**Reviewer performed review:** 2023-02-28 00:24

**Review time:** 10 Days and 22 Hours

<table>
<thead>
<tr>
<th>Scientific quality</th>
<th>[ ] Grade A: Excellent</th>
<th>[ Y ] Grade B: Very good</th>
<th>[ ] Grade C: Good</th>
<th>[ ] Grade D: Fair</th>
<th>[ ] Grade E: Do not publish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novelty of this manuscript</td>
<td>[ ] Grade A: Excellent</td>
<td>[ Y ] Grade B: Good</td>
<td>[ ] Grade C: Fair</td>
<td>[ ] Grade D: No novelty</td>
<td></td>
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<tr>
<td>Creativity or innovation of this manuscript</td>
<td>[ Y ] Grade A: Excellent</td>
<td>[ ] Grade B: Good</td>
<td>[ ] Grade C: Fair</td>
<td>[ ] Grade D: No creativity or innovation</td>
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</table>
In this paper, the author uses the experiments in silicon to obtain the affinity of Remdesivir with ACE2 and coagulation cascade factors through molecular docking. The stability of drug binding with other factors was evaluated by comparing the affinity. It is proved that Remdesivir can combine with ACE2 and coagulation factor stably. It may be the theoretical basis for Remdesivir to play a pharmacological role and play an anticoagulant role. So that we can better understand the role and application of Remdesivir in the pharmacological treatment of COVID-19. This paper uses the method of in-silicon experiment to transform this pharmacological research into inorganic experiment. And through the affinity between substances, it provides a theoretical basis for the antiviral effect and possible anticoagulant effect of Remdesivir. In the body, the activation of coagulation process and the change of hypercoagulable state is a complex regulatory process. Although, the in silico analyses indicated that Remdesivir interacts with clotting factors, whether this situation still plays a role in the body is still a long process to be proved.
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**Title:** In silico evidence of Remdesivir action in the blood coagulation cascade modulation in the COVID-19 treatment  
**Provenance and peer review:** Invited Manuscript; Externally peer reviewed  
**Peer-review model:** Single blind  
**Reviewer’s code:** 05347124  
**Position:** Peer Reviewer  
**Academic degree:** MD  
**Professional title:** Associate Professor, Doctor  
**Reviewer’s Country/Territory:** China  
**Author’s Country/Territory:** Brazil  
**Manuscript submission date:** 2022-12-30  
**Reviewer chosen by:** Geng-Long Liu  
**Reviewer accepted review:** 2023-03-30 16:24  
**Reviewer performed review:** 2023-03-30 16:48  
**Review time:** 1 Hour

### Scientific quality

- [ ] Grade A: Excellent
- [ ] Grade B: Very good
- [ ] Grade C: Good
- [Y] Grade D: Fair
- [ ] Grade E: Do not publish

### Novelty of this manuscript

- [ ] Grade A: Excellent
- [ ] Grade B: Good
- [Y] Grade C: Fair
- [ ] Grade D: No novelty

### Creativity or innovation of this manuscript

- [ ] Grade A: Excellent
- [ ] Grade B: Good
- [ ] Grade C: Fair
- [Y] Grade D: No creativity or innovation
<table>
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<tr>
<th>Scientific significance of the conclusion in this manuscript</th>
<th>[ ] Grade A: Excellent</th>
<th>[ ] Grade B: Good</th>
<th>[Y] Grade C: Fair</th>
<th>[ ] Grade D: No scientific significance</th>
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<tbody>
<tr>
<td>Language quality</td>
<td>[ ] Grade A: Priority publishing</td>
<td>[ ] Grade B: Minor language polishing</td>
<td>[Y] Grade C: A great deal of language polishing</td>
<td>[ ] Grade D: Rejection</td>
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<td>Conclusion</td>
<td>[ ] Accept (High priority)</td>
<td>[ ] Accept (General priority)</td>
<td>[ ] Minor revision</td>
<td>[ ] Major revision</td>
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<td>Re-review</td>
<td>[Y] Yes</td>
<td>[ ] No</td>
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<td>Peer-reviewer statements</td>
<td>Peer-Review: [Y] Anonymous</td>
<td>[ ] Onymous</td>
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<td>Conflicts-of-Interest: [ ] Yes</td>
<td>[Y] No</td>
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**SPECIFIC COMMENTS TO AUTHORS**

There is no experimental evidence to support this paper, which is just the screening of information and data methods. Its research conclusion is weak in science and easy to mislead. In addition, there are some grammatical errors, and the author does not provide language polishing proof. In short, this paper does not reach the level of journal publication.