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| Book Name: | [**Chemistry and Biochemistry: Research Progress**](https://www.bookpi.org/bookstore/product/chemistry-and-biochemistry-research-progress-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4676** |
| Title of the Manuscript:  | **Rabbit angiotensin-converting enzyme-2: 3D structural reconstruction and comparison with its human analog** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**International Journal of Molecular Sciences, 25(22): 12393, 2024.**

**Available:** [**https://doi.org/10.3390/ijms252212393**](https://doi.org/10.3390/ijms252212393)

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| PART 1: Comments |
|  | Reviewer’s comment**Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | This publication is significant because it supports the use of rabbits as a model for ACE2-related research by highlighting the structural similarities between human and rabbit ACE2. The 3D reconstruction offers information on species-specific differences, which is helpful for drug development and scientific research. These results advance our knowledge of how ACE2 functions in disease mechanisms, such as infections caused by SARS-CoV-2. |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | The title fits the study and gets its main idea across. A title with more details could make the topic clearer:“How 3D Structures of Rabbit and Human ACE2 Compare: Effects on Virus Binding and Blood Pressure Control.” |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | Indeed, it is a thorough and organized abstract. For more clarification on the process, I would advise briefly explaining the computational tools (DUET, AlphaFold2, Bluues) used for 3D reconstruction and thermodynamic analysis. Readers will gain a better understanding of the study's methodology with this inclusion. No removals are required. |  |
| **Is the manuscript scientifically, correct? Please write here.**  | The manuscript is accurate in terms of science, yes. The study would be improved, though, if it acknowledged the absence of experimental confirmation and talked about the functional implications of anatomical changes. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | Most of the references are current and adequate. The study would be strengthened even more, though, by include additional research on structural modeling methods for ACE2 and rabbit susceptibility to SARS-CoV-2. |  |
| Is the language/English quality of the article suitable for scholarly communications? | The language is appropriate for academic conversation, yes. Nonetheless, a few minor grammar corrections and phrasing adjustments would increase reading and clarity. It is advised to review the language lightly. |  |
| Optional/General comments | A thorough comparison of human and rabbit ACE2 is presented in the publication, providing insightful information for biomedical research. Although the use of computational modeling is presented clearly, the study might benefit from a quick rundown on the functional implications of structural changes. Furthermore, the conclusions would be strengthened by pointing out possible experimental validation and recognizing the limitations of computational approaches.Review Comments**1. Is the manuscript correct?**The study has a solid structure and holds up.Points to consider:* Lack of lab tests: The research uses computer tools without checking the results in a lab. If lab tests aren't an option, the paper should state this.
* How structural differences affect function: While the paper highlights similarities, it should also explore whether structural differences change how well SARS-CoV-2 sticks to rabbits compared to humans.

**2. Do the references suffice and are they up to date?** The references are current and pertinent.Ideas to add:* Put in more sources about ACE2 structural comparison methods across species.
* Add research on how rabbits might catch coronaviruses.

Specific Revision Suggestions

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| **Section** | **Issue Identified** | **Suggested Revision** |
| Abstract | Computational tools are not mentioned. | In the abstract, briefly discuss Bluues, AlphaFold2, and DUET. |
| Results - 3D Structural Comparison | Insufficient attention to functional implications | Examine whether variations in structure could affect viral binding. |
| Methods | lacks experimental validation | Recognize that computational-only analysis has limitations. |
| References | Important research on rabbits' vulnerability to SARS-CoV-2 is missing. | Include current research on rabbit coronavirus infections. |

**Rationale:** The manuscript is scientifically sound and well-structured. To improve the discussion of functional distinctions, recognize constraints, and improve language, a few minor changes are required. The manuscript is good scientifically and is organized properly. The discussion of the functional implications of structural differences has to be improved, methodological limitations need to be acknowledged, and the terminology needs to be clarified. |  |

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| **PART 2:**  |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?**  |  |  |

**Reviewer details:**

**Alishba Eman, Bahria University Health Sciences Campus, Pakistan**