Review Form 1.7

Journal Name:	**Journal of Advances in Medicine and Medical Research**
Manuscript Number:	**Ms_JAMMR_108469**
Title of the Manuscript:	**Study of the pharmacological potential of organic compounds from Bryophyllum pinnatum (Lam .) OK crassulaceae against SARS-COV-2 proteases**
Type of the Article	**Analytical Research Paper**

Review Form 1.7

PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments **1. Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) **2. Is the title of the article suitable?** (If not please suggest an alternative title) **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?** **6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	1.The aim of this research is to assess the active components of the *Bryophyllum pinnatum* plant with relieving antiviral, anti-inflammatory, and immunomodulatory properties against SARS-CoV-2. The work provides a basis for understanding the pharmacokinetic activity, absorption, distribution, metabolism, excretion, and toxicity of the chemical bryotoxin B, making the plants interesting for further investigation into their capacity to fend off COVID-19. 2.Title: Since no experimental testing on rats have been performed, we cannot mention the investigation of pharmacological potential in the title, the title should be changed to read as follows: **-** An in silico analysis study of the chemical compounds from the crassulaceous plant Bryophyllum pinnatum against the SARS-COV-2 proteases OR **-**Molecular Docking Analysis of organic compounds from *Bryophyllum pinnatum (Lam .)* Ocrassulaceae against SARS-COV-2 proteases. 3. This abstract, in my opinion, is more evocative than the previous. **Abstract: A**cute severe respiratory syndrome SARS-COV-2, a member of the coronavirus family of enveloped RNA viruses, is the disease-causing agent of COVID-19. Research has been done on the active components of medicinal plants that have therapeutic promise. In this regard, the goal of this work was to investigate the anti-SARS-CoV-2 activity of compounds from the plant *Bryophyllum pinnatum* (Lam.) Oken. **Material and Methods** : The methodology involved the selection of chemical constituents from the plant leaves in the Pubchem database , in addition to obtaining the protein structures of SARS-CoV-2 (6VXX, 6LU7, 1R42) from the Protein Data Bank (PDB). Docking was carried out using Autodock Tools 1.5.6 and Autodock Vina , with LigPlus for amino acids and Chimera v.13.1 for 3D structures. The most promising compounds were chosen, and the pkCSM tool was used to assess their absorption, distribution, metabolism, excretion, and toxicity (ADMET) characteristics. **Results &Discussion**: 264 molecular connections were made from the evaluation of 66 chemical components, 21 of which had binding energies that were less than -8.9 kcal.mol-1. The chemical bryotoxin B produced the highest findings with an interaction energy of -9.9 kcal.mol-1 with the Spike protein, indicating its potential as a SARS-CoV-2 inhibitor. These results are encouraging, but more in vitro and in vivo research is needed to validate the effectiveness of COVID-19 treatments. 4.The manuscript's subsections and organisational style are suitable. But the Tables require better structuring. 5. As far as analysing the outcomes, it is true. Even though there are enough references 61 in all, the paper needs more recent ones because there are only three references from year 22 and two from year 23. A few instances of references	

7. Additional Comment	that can be used are provided below: -Bioprospecting for Anti-COVID-19 Interventions From African Medicinal Plants: A Review Phytochemicals against SARS-COV-2 Infection – Review Volume 2022;17(5): 1–42 . -Molecular Docking Analysis from *Bryophyllum pinnatum* Compound as A COVID-19 Cytokine Storm Therapy . Open Access Macedonian Journal of Medical Sciences. 2022 Mar 21; 10(B):779-784. N.B. References 30 and 32 are listed on page 5, whereas reference 31 is not cited until page 14 after reference 35 as a result, the research's references should be renumbered. 7.Although the Ld50 for rats (a measure of acute oral toxicity) was mentioned on page 33, no testing was done, hence no pharmacological trials were conducted. If studies have been conducted, they must have been ethically authorised and must have included information about the number, weight, and type of rats used as well as the range of doses. The author had to acknowledge where the information came from otherwise (Reference).Likewise with chronic oral toxicity.	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	yes	
Optional/General comments		

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with 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?	*(If yes, Kindly please write down the ethical issues here in details)*	

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