

**Review Form 3**

Journal Name:	<a href="#">Journal of Advances in Biology &amp; Biotechnology</a>
Manuscript Number:	Ms_JABB_125699
Title of the Manuscript:	<b>CRISPR-Cas9: A cutting-edge genome-editing technology with many potential applications</b>
Type of the Article	<b>Review Article</b>

### Review Form 3

#### **PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	<b>Reviewer's comment</b>	<b>Author's Feedback</b> ( <i>Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here</i> )
<b>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</b>		
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>		
<b>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.</b>		
<b>Are subsections and structure of the manuscript appropriate?</b>		
<b>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</b>		
<b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b> -		

**Review Form 3**

<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>		
<p><u>Optional/General</u> comments</p>	<p style="text-align: center;"><b><u>Peer Review of Manuscript Number:2024 JABB 125699</u></b></p> <p><b>Abstract Clarity and Focus:</b></p> <ul style="list-style-type: none"><li>• <b>Length:</b> The abstract is too long and includes excessive details. Abstracts should be concise, summarizing only the study's key points. It would be helpful to make it more succinct.</li><li>• <b>Grammar/Language:</b> The last sentence of the abstract, which starts with "decrease medical as well as financial burden...", seems out of context and may have been mistakenly copied from another section. Consider revising or removing it.</li></ul> <p><b>Keywords:</b></p> <ul style="list-style-type: none"><li>• <b>Inconsistent Keywords:</b> While important keywords like "genome-editing" and "CRISPR-Cas9" are included, other relevant terms such as "food security" and "sustainable development" are missing. Adding these would improve the paper's visibility and relevance.</li></ul> <p><b>Introduction and Background:</b></p> <ul style="list-style-type: none"><li>• <b>Flow and Coherence:</b> The content is informative but can be improved in terms of flow. Some historical details, like the discovery of CRISPR and early research from the 1980s and 2000s, are too detailed for the introduction. Consider shortening this section or moving it to a dedicated "Background" section.</li><li>• <b>Spelling/Grammar:</b> There are minor grammar issues, such as in the sentence "due lack of sufficient information related the bacterial genetics." The correct phrasing should be: "due to a lack of sufficient information related to bacterial genetics."</li><li>• <b>Duplication:</b> The mention of Emmanuelle Charpentier and Jennifer Doudna receiving the Nobel Prize is repeated in both the abstract and the introduction. Avoid this redundancy by removing one of the mentions.</li></ul> <p><b>Structure and Subheadings:</b></p> <ul style="list-style-type: none"><li>• <b>Subheading Organization:</b> The paper lacks clear subheadings to guide the reader. Adding subsections like "CRISPR-Cas9: Mechanism," "Applications in Therapeutics," "Applications in Agriculture," and "Challenges and Future Prospects" would greatly improve readability and organization.</li><li>• <b>Ambiguous Terms and Phrasing:</b> Some phrases, such as "The spacer sequences encode for CRISPR RNAs (crRNAs) which helps in the recognition of the target DNA sequence," need clarification. Ensure subject-verb agreement, as "helps" should be "help" in this case since "sequences" is plural.</li><li>• <b>Repetition of Guide RNA (gRNA) Structure:</b> The explanation of the guide RNA structure is clear but repeated across different sections. Consolidating this information into one section would enhance clarity.</li><li>• <b>Punctuation Errors:</b> There are minor punctuation issues, such as the sentence,</li></ul>	

**Review Form 3**

	<p>"the gene-specific gRNA can be designed and synthesized to recognize the desired DNA sequence in a gene. And, this crucial step is performed by gRNA." Avoid starting sentences with "And" as it is informal.</p> <ul style="list-style-type: none"> <li>• <b>Mechanism Details:</b> The description of genome editing using CRISPR-Cas9 is adequate but could benefit from a clearer step-by-step explanation, particularly regarding the biogenesis of guide RNA and its interaction with Cas9.</li> </ul> <p><b>Redundant and Repetitive Information:</b></p> <ul style="list-style-type: none"> <li>• <b>Repetitive Concepts:</b> Some topics are mentioned repeatedly with only slight variations. For instance, the side effects of traditional cancer treatments like chemotherapy, surgery, and radiation are discussed in multiple sections. Streamlining these points would eliminate unnecessary repetition.</li> <li>• <b>Inconsistent Use of Abbreviations:</b> Terms like "CRISPR-Cas9" are inconsistently abbreviated throughout the manuscript. Maintain a standardized approach to introducing and using abbreviations for better clarity.</li> </ul> <p><b>Tone and Formality:</b></p> <ul style="list-style-type: none"> <li>• <b>Mix of Formal and Informal Tone:</b> To align with academic standards, some informal phrases, such as "As we all know," should be replaced with more formal phrasing like "It is well-known that..."</li> </ul> <p><b>References:</b></p> <ul style="list-style-type: none"> <li>• <b>Formatting Inconsistency:</b> The reference format varies throughout the manuscript, with some sources cited with full URLs and others using numbers. Consistent formatting is essential for clarity and professionalism.</li> </ul>	
--	--	--

**PART 2:**

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

Name:	Tanwangini Sahani
Department, University & Country	India