

### Review Form 3

Journal Name:	<a href="#">Asian Journal of Biochemistry, Genetics and Molecular Biology</a>
Manuscript Number:	Ms_AJBGMB_127999
Title of the Manuscript:	Advances in the Use of Genome Editing Tools in Africa: A Review
Type of the Article	Original Research Article

#### **General guidelines for the Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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#### **Important Policies Regarding Peer Review**

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

	Reviewer's comment	Author's Feedback <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. A minimum of 3-4 sentences may be required for this part.</b>	<ul style="list-style-type: none"> <li>• <b>Please add this points:</b></li> <li>• Genome editing also called gene editing, usually correct, introduce or delete almost any DNA sequence in many different types of cells &amp; organisms. New methods have made genome editing faster, cheaper and more efficient.</li> <li>• CRISPR/Cas9 is an RNA based system. More efficiently modified than protein based approaches &amp; allows for targeting of multiple sites.</li> <li>• CRISPR/Cas9 system has role in adaptive immunity in bacteria. Type II CRISPR system provides protection against DNA from invading viruses &amp; plasmids via RNA-guided DNA cleavage by Cas proteins. Target site recognition is made entirely by gRNA.</li> <li>• CMD is caused by viruses belonging to genus Begomovirus in family Geminiviridae. Here leaves &amp; shoots are distorted &amp; deformed &amp; plants that are stunted. Transmitted by whiteflies &amp; primarily infect cassava plants.</li> <li>• There are some genetically engineered forms of resistance to control CMD. They are released in insufficient quantity or the level of host plant resistance required for use in region has not been determined.</li> <li>• Cassava mosaic disease (CMD) is prevalent in many parts of Africa, India, Sri-lanka and causes serious losses. Cassava brown streak virus disease in costal areas of eastern &amp; southern Africa.</li> </ul>	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	Yes	

**Review Form 3**

<p><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></p>	<ul style="list-style-type: none"> <li>• <b>Please add this points:</b></li> <li>• Cassava (<i>Manihot esculenta</i>) is a major staple food crop in many parts of the tropics. Found in sub-Saharan Africa. They don't depend on fertile soils &amp; can withstand prolong drought.</li> <li>• In recent decades there have been major projects on etiology, epidemiology, control of CMD in Nigeria, Kenya, Ivory Coast &amp; most recently Uganda.</li> <li>• Recently, CRISPR based genome editing technology is used in treatment of various cardiovascular diseases like cardiac arrhythmia, atherosclerosis, duchenne muscular dystrophy, human induced pluripotent stem cell derived cardiomyocytes, hypertrophic cardiomyopathy, noonan syndrome, homology directed repair, dilated cardiomyopathy.</li> <li>• Livestock production plays an essential role in current social life. Various livestock products are meat, eggs, milk, fur etc which provide large quantity of energy &amp; high quality of protein. Therefore an efficient, healthy &amp; safe livestock farming industry is required. The disease resistance of livestock has a direct bearing on their fitness. Disease resistance traits have been considered the target trait for genetic improvement of livestock.</li> </ul>	
<p><b>Is the manuscript scientifically, correct? Please write here.</b></p>	<ul style="list-style-type: none"> <li>• This manuscript explained about the application of gene-editing tools for African crop/plant improvement, biotic &amp; abiotic stress resistance, application of gene editing tools in livestock breeding and health improvement.</li> </ul>	
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p>References are sufficient &amp; recent.</p>	
<p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>Yes</p>	
<p><b><u>Optional/General</u> comments</b></p>		

**PART 2:**

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

**Reviewer Details:**

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<p>Department, University &amp; Country</p>	<p><b>Tomo Riba Institute of Health &amp; Medical Sciences (TRIHMS), India</b></p>