

### Review Form 3

Journal Name:	<a href="#">International Journal of Pathogen Research</a>
Manuscript Number:	Ms_IJPR_127940
Title of the Manuscript:	<b>Profiling the first production assessment of Shigella biosurfactants like molecule in anaerobic conditions</b>
Type of the Article	

#### **PART 1: 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. A minimum of 3-4 sentences may be required for this part.</b>	This manuscript is a welcomed work as it uncovers Shigella's biosurfactant production prospects under anaerobic conditions, offering insights with potential understanding the organism's pathogenesis to epithelial cells, therapeutical and biotechnological applications. The topic is persuasive for advancing sustainable innovations in pharmacology and bioremediation	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The title is not bad, but could better be stated as: "Exploring Shigella Biosurfactant-like molecule (BLM) Production in Anaerobic Conditions: Insights to health and other potential applications"	
<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>	The abstract is not well put together, as some key information are missing making it less concise. It didn't properly follow the "IMRD" style. For instance: <ul style="list-style-type: none"> <li>- No where in the abstract say "Introduction, was anything mentioned to draw the readers mind towards Shigella's BLM's importance and a mention of the study aim and study site</li> <li>- The method was not coherent enough e.g. what study type? Where and what specimens were used to get the 93 Shigella strains from? And how where they organisms obtained? These answers weren't all answered</li> <li>- On the results, the author(s) did fairly well, but I don't understand why the writer(s) put most of the Shigella control strains there. Thus, there's need for little improvement. Note: No mention of what SST3 or T3SS (i.e. Type 3 Secretion System) in the section</li> <li>- The Discussion should be improved upon to be more succinct</li> </ul>	
<b>Is the manuscript scientifically, correct? Please write here.</b>	The study looks scientifically relevant and genuine to me, considering the menacing effects of Shigella spp. as enteric bacteria in LMICs and SSA	
<b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b>	The references are recent, okay and adequate in my opinion.	

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<p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The English is fair, aside the general similarity index for the work that should be looked into, many places in the Methods, figures etc. had French writingse.g “<b>Test de Swarming</b>”: <b>Figure 4</b> etc. all need to bewell translated back to English</p>	
<p><b>Optional/General</b>comments</p>	<p><b>In General:</b></p> <ul style="list-style-type: none"> <li>- <b>The Abstract needs to be looked at as I’ve previously mentioned noting abbreviations (i.e. SST3, LB, SS, OD etc.) that weren’t expatiated there and elsewhere in most parts of the work in general.</b></li> <li>- <b>Main study location name can be included in the Key words</b></li> <li>- <b>No place in the work was it stated clearly if the BLM came from the Lab. Reference samples or field specimens. This should be clarified</b></li> <li>- <b>The introduction part should be refined to capture BLM properties of the organisms, its relevance to knowledge and prospects in fields like Biotech, Bioremediation, pharmacologic studies and few others not the too much talk on Shigella’s part in causing disease</b></li> <li>- <b>In the Methods part, under “Strains and Culture conditions” the last sentence on Gram status confirmed using 3% KOH. It should be better stated as “Gram’s reaction was performed and the bacteria was further confirmed using 3% KOH string test”</b></li> <li>- <b>From the Methods section, under “Test de Swarming” line 2 of the first sentence, the author did not say the necessary type of medium’s name added for 50mL.</b></li> <li>- <b>There should have been a small description of the “Study site and sampling” in the Methods and NOT at the Results section</b></li> <li>- <b>From parts in the Results section like “Isolation, Characterization, and Identification of <i>Shigella</i> spp., Molecular identification: Restriction Fragment Length Polymorphism (RFLP), Evaluation of growth under anaerobic conditions, Biosurfactant production assay, Swarming test and so. The author(s) were writing as though trying to explain processes like in methods and not writing to explain by giving an overview of the study’s findings. Please address these important issues</b></li> <li>- <b>Something missing in the results is that, there wasn’t any mention on which samples e.g. those from the environment (fecal soil or waste water) or hospital produced BLM more or less.</b></li> <li>- <b>The importance of this work should be well tilted with an active voice to focus on the health benefits of the BLM, whilst passively talking on its applications. I will advise the researcher(s) to focus the work by majoring it on Health, and minor on bioremediation on Hydrocarbons (gas) which was presented in the abstract. Thus, redefining key findings from the study relating BLM to disease pathologyand therapeutics/Biotech applications</b></li> <li>- <b>The study Discussion needs to be well put together to explain how consistent it’s findings were with other studies in SSA or the country or if different from those studies, then possible be reasons be given as to why such could have been. Note that this should talk on findings related to the samples collected from the different sources and NOT the reference/control samples. Also, do not forget to state which Shigella strains e.g. those from the environment (fecal soil or waste water) or hospital produced BLM in anaerobic conditions than which and tell us if it agrees or disagree with previous studies</b></li> </ul> <p>There was nothing written by the author(s) on ethical clearance, consent or approval by any lab/clinic or any place prior to conducting the study or where the work was carried out. Though the work should not be discredited on the basis of only that, this should be provided by the researcher (s) to give more credence to the work, moreover some samples were obtained from a hospital</p>	

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**PART 2:**

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

**Reviewer Details:**

Name:	<b>Martin Zang Pam</b>
Department, University & Country	<b>University of Ghana, Ghana, Federal College of Animal Health and Production Technology, Nigeria</b>