



**SDI Review Form 1.6**

Journal Name:	<a href="#">Journal of Advances in Microbiology</a>
Manuscript Number:	Ms_JAMB_45732
Title of the Manuscript:	Molecular characterization of cellulolytic activities bacterial isolates from the hindgut of wood-feeding termites <i>Amitermes evuncifer</i> Silvestri
Type of the Article	

**General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

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**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)
<b>Compulsory</b> REVISION comments	<p><b>Since the aim of this work is not the comparison of molecular and biochemical identification, I suggest the follow :</b></p> <p><b>Remove from table 2, probable organisms</b></p> <p><b>Strengthen the molecular identification results by biochemical ones in results and discussion or vice versa. This is an example taken from an article:</b></p> <p>Morphologically, pure colonies of the bacterial isolate were circular, low-convex, about 2 mm in diameter, smooth, shining and entire. It was a Gram-negative, short-rod or coccobacillary bacterium, arranged singly with an optimum temperature for growth at 30°C and no special pigments were produced, while growth was not allowed in 6.5% NaCl. Biochemically, the results are presented in Table 2. The results collectively satisfy the criteria for the genus <i>Alcaligenes</i> given by Bergey's manual of determinative bacteriology: 0.5 to 0.6 by 2.0 µm in diameter, motile by means of one to eight peritrichous flagella, obligatory aerobic and carbohydrates are usually not utilized (Holt et al., 1994). Also, the results collectively corroborate with the findings of other studies (Coenye et al., 2003; Bacic and Yoch, 2001). In the other hand, after DNA sequencing, sequences obtained with RS16 and fD1 primers were 414 and 435 bp, respectively. BlastN search showed that the nucleotide sequence of 16S rDNA gene of the isolated strain had a homology of 100% to that of <i>A. faecalis</i>. According to the criteria defined by Drancourt and collaborators (2000), the bacterial strain BW1 belonged to <i>A. faecalis</i> strain. Regardless of its morphology, cultural appearance, and physiologic and biochemical characteristics mentioned above, together with the phylogenetic analysis (Figure 2),</p> <p><b>Or another example:</b></p> <p>After PCR amplification of the 16S rRNA gene and DNA sequencing, sequences obtained with RS16 and fD1 primers had different sizes, between 371 and 630bp. According to the criteria defined by Drancourt and collaborators [28], BlastN search showed that the partial sequences of 16SrRNA gene of the isolated strains belong to the genus <i>Bacillus</i> (Table 3). Moreover, all the strains were Gram positive bacilli, motile, spore forming organisms and able to grow at 50°C on LB agar which confirms partial sequence alignment of 16S rDNA data. However, in order to determine whether L4 and H belong to <i>B. subtilis</i> or <i>B. amyloliquefaciens</i>, biochemical characteristics were examined according to Bergey's manual of determinative bacteriology [20]. Thus, these two bacteria were catalase positive and able to hydrolyze starch, pectins and urea. Acetoin was produced from glucose and citrate was metabolized as sole source of carbon. NaCl was tolerated at a concentration of 6.5% but growth didn't occur at 55°C. Whereas, the species <i>B. amyloliquefaciens</i> which related to <i>B. subtilis</i> is unable to hydrolyze pectins and to split urea [29] (Table 4). In accordance with the literature, these results suggest that these two bacteria belong to the species <i>B. subtilis</i> [8,11,20,30,31]. Therefore, based on the morphology, cultural and biochemical characteristics described above, together with phylogenetic analysis, the bacteria L4 and H have been classified as a member of <i>B.subtilis</i>.</p>	



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<b>Minor</b> REVISION comments	<ul style="list-style-type: none"> <li>- I was wondering how were the termite samples identified as Amitermes evuncifer ? it has been done by a specialist or by the DNA identification? This idea should be clarified.</li> <li>- Do the authors mean proteose peptone or protease peptone?</li> <li>- The following method should be referenced: Screening for cellulase-producing bacteria</li> <li>- As a footnote, MR should be notified below the table 2.</li> <li>- In table 3, I suggest removing the result of biochemical identification. The reason behind this that it's just a repetition of table 2 data.</li> <li>- After DNA sequencing, what is the length of the sequences obtained with each primers primer ? the data should be added.</li> <li>- In results section, Phylogenetic Analysis should be placed before Endoglucanase and Exoglucanase Production by Bacterial isolates presented in table 4.</li> <li>- The title of the figure 1 should be completed by adding the idea of the bacteria isolated from the hindgut of wood-feeding termites Amitermes evuncifer Silvestri</li> <li>- The journal names should be written in abbreviation in the references list</li> <li>- Some additional remarks are done in the manuscript. Please see the corrections in red.</li> </ul>	
<b>Optional/General</b> comments		

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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)
<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:**

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