Journal of the Serbian Chemical Society sept 8th, 2018

Dear Editor

Thank you for the evaluation of our ms submitted to “Journal of the Serbian Chemical Society”, entitled " **Molecular Characterization of Naphthalene Utilizing Microorganisms Isolated from Contaminated Cooum Riverine Sediment along the Bay of Bengal**”, which is now changed to the “**Characterization of some naphthalene utilizing bacteria isolated from contaminated Cooum Riverine sediment of the Bay of Bengal (India)**”

The comments raised by the reviewers have been addressed point by point, and we have made, what we think are appropriate changes in the manuscript. A highlighted revised version of the manuscript is included together with an unmarked copy.

We hope that the revised manuscript will be accepted for publication in the Journal of Peptide Science.

Best regards

Dr Paromita Chakraborty

Reviewers' comments:

Reviewer #1:

1. **Fig 2. OD values for a span of 10 days, Yaxis is missing the unit for OD, no need for the unit of OD?, OD abbreviation ? optical density ?OD600, OD660**

Response:

We apologies for this typographical error, the missing information are added in the revised figure “**Unit is nano meter (nm), OD value was taken at (600 nm), OD – Optical density**”.

1. **SpellmissSpingo ==>Sphingofrom Sphinx, Sphing*Compounds isolated from the brain and nervous tissue.*[Greek *Sphinx*, *Sphing-*, Sphinx (a monster in Greek mythology that set people riddles, killing those who could not answer them) originally in the name of thecompound *sphingosine*, with reference to its enigmatic nature.]*Sphingosine* is a constituent of a number of substances important in the metabolism of nerve cells, especially *sphingomyelins*, which occur widely in brain and nervous tissue; *sphingolipids* are members of a class of compounds which are fatty acid derivatives of sphingosine and occur chiefly in the cell membranes of the brain and nervous tissue.Spingobacterium sp. (NS19-SRMND14E), Spingobacterium in the text and Fig.4Sphingobacterium in Fig.3**

Response:

We thank reviewer for bring to our notice. The rephrasing of sentences, as suggested by the reviewer has been done.

1. **Fig 3. Bootstrapped consensus Neighbor-Joining tree based on 16 S rRNA gene sequence analysis showing phylogenetic position of the isolates identified**

Response:

We apologize for this oversight, and have worked through the ms from this perspective.“the sentence should have been **Fig 3. Bootstrapped consensus Neighbor-Joining tree based on 16 S rRNA gene sequence analysis showing phylogenetic position of the isolates.**

1. **Regarding to Biodegradation of naphthalene, Why different in NS19 (D) with others(B,C,E)?Can you assign many peaks in NS19 (D)?3.636, 5.335,7.799**

**9.870, 10.990, Fig 4. Biodegradation of naphthalene: control (A), NS3 Bacillus sp. (B),**

**NS14 Pseudomonas sp. (C), NS19 Spingobacterium sp. (D), NS15 Cellulosimircobium sp. (E)**Response:

We apologize for this presentation error. We have worked through the ms from this perspective.Actually, as u can see the naphthalene peak is at 8.087 in the control figure (A) and when you compare with the NS19 you can see that there is no naphthalene peak. The first peak is the solvent peak and rest of the peaks are metabolites produced by the species (NS 19) which are not of any metabolites of naphthalene.

1. **Please read carefully again (L.191-265) I couldn't follow clearly with (L.191-265),The text of explanation for Fig. 5 (L.257-265),Several bacterial strains which were found to degrade environmental contaminants, usually have the genes responsible for producing the enzyme to degrade the contaminant either in their chromosomes or plasmid. Simon**[**et.al**](http://et.al/)**reported the 81 kb plasmid, pDTG1 contain the naphthalene dioxygenase, ndo which is responsible for the degradation. Hence, the presence of ndo gene in both gram positive and gram negative isolates were screened. Of the four bacterial strains screened for ndo genes, amplification was observed only in one strain NS14-SRMND 14A at 1.8 kb, whereas the other three strains (NS3, NS15 and NS19) did not show any amplification in all the triplicate samples (Fig 5). We therefore studied the presence of the ndo gene with degenerate primers and altering the PCR conditions.**

Response:

We apologies for this confusion, Actually, SRMND means SRM University isolate ND means Naphthalene degradation. These confusing statements are rewritten as suggested by the reviewer.

1. **Fig.5 ,Gram negative, NS6 1.8kb, NS9, 100bp, NS10, NS11 1.8kb, NS14 1.8kb, NS19
Gram positive, NS3, 100bp, NS15, NS21,**

Response:

We thank the reviewer for suggestion. During our bacterial identification studies, even though they are capable of degrading naphthalene. we have found that NS6, NS9, NS10, NS11, NS21 belong to highly pathogenic group of bacteria. Working with these bacteria, even in minute quantities require special permission and regulations from the govt. Hence these isolates were not included further experiments.