

Government of India
Bhabha Atomic Research Centre
Radiation Biology & Health Sciences Division

24th July, 2018

Ref: BARC/RB&HSD/WORKS/2018/144305

Sub: Invitation of Quotations for “Amplicon based metagenomic sequencing”

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DUE DATE: 13/08/2018

Radiation Biology & Health Sciences Division invites quotations for minor fabrications works for repairs of “**Amplicon based metagenomic sequencing.**” Detailed scope of the work is provided in the attachment.

Quotations should be submitted to Head, RB&HSD before the due date by **Regd/ Speed Post** in sealed envelope only. The hand delivered quotations will not be considered. The address on the envelope should read:

(Attn: Dr. Subhash C Bihani)

**To, The Head, Radiation Biology & Health Sciences Division,
BARC, Trombay, Mumbai - 400 085.**

Head, RB&HSD reserves the right to accept or reject any or all the quotations without assigning any reason.

For any further clarification **Dr. Subhash C Bihani, RB&HSD (Extn -26291)** may be contacted.

Head,
Radiation Biology & Health Sciences Division

Detailed scope of the work

1. 16s rRNA (V3-V4 and V6 combined) and ITS (ITS1-ITS2) region amplicon sequencing of environmental/genomic DNA samples (**quantity – 3 samples each**) and analysis for microbial and fungal community analysis.
2. For microbial analysis paired end 300 bp (for V3-V4 and V6 combined regions of 16s rRNA) sequencing run should be performed. For fungal analysis amplification of the ITS (Fungus ITS1-ITS2) region should be performed. The work involves design and synthesis of primers, target amplification and library preparation from the environmental samples/genomic DNA. More than 0.5 Million Reads per sample are required with > 70 % reads should be of quality Q30 and above.
3. Bioinformatic analysis for microbial and fungal community analysis of the sequence data generated in the previous step needs to be performed and detailed analysis report should be provided.
4. Bioinformatic analysis should include following steps: (A) Read quality checking (B) Read preprocessing/Demultiplexing of samples (C) Building consensus sequence (D) Taxonomy assignment upto the species level (E) Building phylogenetic tree (F) Bacteria diversity analysis and provide shannon index for diversity and rarefaction plots, distance matrix, UPGMA tree and principal component analysis.
5. Output files for final analysis as well as intermediate analysis steps should be provided. Raw and processed data files in the format suitable to use in the analysis by open source software like Qiime etc should be provided as required.

Data deliverables:

1. Raw Sequence data of the environmental samples.
2. Final and intermediate processed files generated at different steps of the analysis.
3. Final detailed analysis in tabular and graphical form for both microbial and fungal community composition.

Terms and conditions:

- 1) **Delivery:** This work order shall be executed within three months from the date of its receipt. Material if any is to be delivered to North Gate, BARC, Mumbai - 400085.
- 2) Taxes and excise duties shall be quoted separately. **The bidder should mention TIN and PAN No. in the quotation clearly.**
- 3) **Payment terms:** Payment in general is made within 30 days of the completion of the order and on production of bill in triplicate along with an advanced stamp receipt for the bill amount and guarantee certificate referred to (3) above. The mode of payment is online. Bidder should submit bank details along with the invoice.
- 4) Head, RB&HSD reserves the right to accept /reject any or all quotations without giving any reason.
- 5) **Confidentiality & Publicity Clause** No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as “Proprietary” in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractor, consultants, advisers or employees engaged by a party with equal force.
- 6) **“Restricted information” categories under Section 18 of the Atomic Energy Act, 1962 and “Official Secrets” under Section 5 of the Official Secrets Act, 1923:-**Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.
- 7) **Prohibition against use of BARC’s name without permission for publicity purposes:-**The contractor or sub-contractor, consultant, advisor or the employees engaged by the contractor shall not use BARC’s name for any publicity purpose through any public media like Press, Radio, T.V or Internet without the prior written approval of BARC.