

BHABHA ATOMIC RESEARCH CENTRE
NUCLEAR AGRICULTURE AND BIOTECHOLGY DIVISION
MUMBAI 400 085

Ref.: NABTD/2019/48584

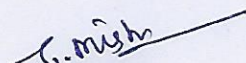
12/03/2019

Sub.: Transcriptome sequencing (RNAseq) and analysis of 12 *Cicer arietinum* (Chickpea) samples

1. *Quotations are invited for Transcriptome sequencing (RNAseq) of 12 Cicer arietinum (Chickpea) samples on illumina hiseq platform (150 x 2 chemistry) and its analysis including proper bioinformatics support up to proper annotation of differentially expressed genes. (As per annexure-1)*
2. Taxes and excise duties shall be quoted separately. Form AF shall be provided wherever necessary.
3. The quotations are to be strictly in printed letter head and the quotation format should consist of sales tax registration number registered with local ST authority/CST authority, PAN number of the firm, service tax registration number etc.
4. The quotation must reach the undersigned by **15/04/2019** and must be sent in a sealed envelope superscribed with the above reference number and due date given above.
5. The address on the envelope should read

Golu Misra, SO/C
Nuclear Agriculture and Biotechnology Division
Bhabha Atomic Research Centre, Mumbai 400 085.

6. There is no need of inspection.
7. The bidder shall deliver the finished components within five weeks from the date of firm purchase order issued to the bidder.
8. Director, Bioscience Group, BARC reserves the right to accept/reject any or all quotations without any reason.


Golu Misra,
SO/C
PIS, NABTD

To,
Web display and Notice Boards.....

Annexure -1

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12/03/2019

Tender specifications for Transcriptome sequencing (RNAseq) and analysis of 12 *Cicer arietinum* (Chickpea) samples

1. Technology to be used: Illumina Hi-Seq
2. Application: RNA sequencing
3. Sample Type: Tissue samples will be provided
4. No of sample: **12**
5. Total RNA to be extracted from biological sample and library to be prepared as per standard procedures.
6. The highly abundant sequences such as ribosomal RNA should be eliminated to enrich coding genes for transcriptome library preparation and the method followed should be disclosed by company.
7. Library Type: Illumina RNA library preparation.
8. Library QC using Qubit, Tape station and qPCR to be used for measuring the quality and quantity of the library before sequencing.
9. Read Length: 150x2 or > 150 x 2 for RNA Sequencing to generate 7-8 Gb data per sample.
10. Bioinformatics analysis should include entire analysis and support till publication.
11. **Bioinformatic Analysis:** Assembly statistics, alignment percentage, Data statistics, Gene ontology, pathway, sample comparison, figures of volcano plot, Heatmap, PCA, assembly length distribution, distance based clustering, Venn Diagram
12. **Standard Figures and Graphs:** Gene ontology, volcano plot, Heatmap, PCA, assembly length distribution, distance based clustering, Venn diagram
13. The company should have good experience/ record in conducting such experiments before with proof of publications and or certificate given in writing.
14. **Vendor should have in-house sequencing facility in India and Illumina certified vendor and certification from other companies related to sequencing technology will be considered more competent than others without certifications.**
15. **Samples (Tissue, RNA etc) should not be sent out of India.**
16. **Proof of Publications: Minimum 50 publications should be cited for NGS and Analysis.**
17. **Proof of lab facility: Illumina installation certificate in India should be provided, partner/collaborator company installation certificate located abroad will not be considered.**
18. Establishment of firm: Firm should be established in India 8 years before with NGS lab and experience in handling NGS projects and successful completion (Testimonial should be provided).
19. Data should be delivered through secured server & HDD only. To maintain data confidentiality, firm should not write data in CDs/DVDs.
20. Time lines to complete the project with complete analysis should be written clearly and should not exceed more than 8 weeks.
21. The details of progress of experiment will be intimated to the customer/scientist and further processing in case of any issues will be based on the instructions of the customer only.
22. Failure to submit quotation as per the technical specification may deprive the concerned firm from consideration.