

BOSE INSTITUTE KOLKATA

Tender No.	BI/T/03/2024-25
Tender date	02-MAY-2024
Type of Tender	Open
Tender Title	NGS-based sequencing of DAP-Seq DNA and advanced data analysis service
Specification	Attached (Annexure-II)
Quantity	06 Samples
Last date & time for submission	: 24-MAY-2024 upto 12:00 noon
Date & time for opening of bids	: 24-MAY-2024 at 12:30 pm
Submission of Tender (Address)	: Tender Box will kept at the Gate of UAC, Bose Institute, Unified Academic Campus, Block EN 80, Sector V, Salt Lake, Kolkata-700091.
Venue of bid opening	: As above
For any query the interested bidders may contact (Dept. / Section / Div. /Unit)	: registrar_office@jbose.ac.in / bipurchase@jbose.ac.in

General Terms & Conditions:

Type of Bid	: Two bid system
Payment terms	: After successful execution of the job and satisfactory report from the concerned end user.
Delivery schedule	: Maximum 60 days from the date of receiving samples.
Bid security (earnest money deposit), if applicable	: Rs. 2,500/- <ul style="list-style-type: none"> • A/c payee Demand draft / Bankers cheque / Bank Guarantee / e-bank guarantee / insurance surety bonds / fixed deposit receipt towards Earnest Money (EMD) as prescribed in the NIT should in favour of "Bose Institute" payable at 'Kolkata' alongwith a covering letter stating the bank details for releasing the said EMD online by the Institute, as per norms to be submitted to the Purchase Section. • Bidder must submit copy of valid Registration Certificate (i.e. MSME, NSIC) for EMD Exemption. • No interest shall be payable on Earnest Money Deposit
Documents to be submitted alongwith the technical bid	: (i) Documents in support of experience of carrying out similar type of job (ii) Copies of PO in support of similar work carried out in other organizations/Institute (iii) Quoted price on company letterhead with banking details (iv) Justification of the quoted price with necessary documents enclosed. (v) Fall Clause Certificate (Annexure-I) (vi) PAN & GST & Trade License, CIN number (if applicable)

Name of the Item and tender number should be mentioned on the envelope positively. Technical bids alongwith supporting documents to be submitted in separate envelope and the price bid in a separate envelope. Both the envelopes to be sealed under a common envelope

Bose Institute reserves the right to accept or reject any or all tenders either in part or in full. The reasons for rejecting the tender of a prospective bidder will be disclosed only when enquiries are made.

Registrar (Officiating)

Quotation No.....

Date :

PROFORMA OF FALL CLAUSE CERTIFICATE

[This certificate should be uploaded on the letter head of the company / firm / agency]

If on any subsequent date after submission of quotation or placing of supply order, the manufacturer (the term manufacturer will also include his authorized distributor / agent) reduces the sale price of such stores or sells such stores to any party at a price lower than the price charged / chargeable against supply order placed by Bose Institute, Kolkata, the manufacturer (including his authorized distributor / agent) as aforesaid in case the quotation is submitted by them and supply / service is also effected by them) will forth-with notify such reduction in sale price to Bose Institute, Kolkata and price payable for the stores to be supplied against the Supply Order after the date of such reduction in sale price coming into force shall reduced **correspondingly and will be reimbursed to the Institute.**

(Signature of Bidder with date & with Rubber Stamp)

NGS-based sequencing of DAP-Seq DNA and advanced data analysis service

DNA fragments obtained via DAP-seq (DNA affinity purification sequencing), a technique for affinity purification of protein-bound DNA to be sequenced using an appropriate NGS technology, data acquisition and advanced analysis, as mentioned below, to be performed.

Total Number of samples: 6 samples (3 from the control set and the other 3 from the experimental set). DNA fragments (~200 nt) generated via mild sonication and DNA-affinity purified.

Experimental goal: The experimental approach used in this study aims to ascertain the specific genomic areas that are bound by the protein under investigation. The service provider is expected to identify DNA sequences in the sample, motifs in them, commonality among sequences, derive consensus, if any, and characterize the genomic location homologous to the sequence.

Identification of sequences which are matching to the promoter-regulatory or upstream to genes, perform homology analysis among these sequences, derive consensus. Characterization of the genes' function and comparative detection analysis among the samples.

The technical specification of this service requirement is written below:

1. Library preparation: Samples to be collected from Bose Institute (cost should be included in the quoted price). The adaptor ligation of the sample we provide is at the discretion of the firm and could be done in accordance with the procedure advised by the NGS system they will be employing to fulfill our requirements.

2. Platform of sequencing: Our experiment requires the use of Illumina Hi-seq or better platform.

3. Depth of generated data: About 25 million (~8Gb data) curated ~150bp paired- end reads per sample.

4. Data quality and data analysis:

4.1 The quality control data, DNA library preparation procedure should be made available to us.

4.2 The genome-wide alignment data of the reads (alignment should be done with Solgenomics 4.0 reference genome), and the rRNA/DNA, tRNA/DNA, repeat associated DNAs should be excluded.

4.3 All the read sequences should be made available in the FASTA format. Genomic location information of the read sequences, unique reads identification, and whether they are located at the promoter region of the gene or adjacent regions should be provided in a detailed excel report.

Contd.....

4.4 The filtered reads or unique reads found after mapping with Solgenomics 4.0, should be searched for common motifs.

4.5 Filtered reads should be aligned to the genome to find which are located at the promoter region of the gene, within 2000 nucleotide upstream of the start codon. Provide the information of the gene including Gene Ontology and KO terms. GO enrichment and KO pathway analysis of the genes.

4.6 A comparative analysis of the control and experimental samples for unique reads, genes as mentioned above, GO enrichment, KO pathways.

4.7 A comprehensive technical proposal is required. Information on the experimental design, including library preparation techniques, the version of the sequencer to be used, the precise plan of the bioinformatics workflow to be employed, and other relevant topics should all be included in the technical proposal.

4.8 The service provider must supply evidence of prior experience of working on NGS based DAP-Sequencing or ChIP-Sequencing and data analysis.

4.9 The company must have in-house data analysis facility.

4.10 Service completion time: Maximum 60 days from the date of receiving samples.