BOSE INSTITUTE
KOLKATA

Tender No.	:	DPB/DB/2014-15/001
Tender date	:	19.12.2014
Type of Tender	:	Limited

Tender Title	:	**De Novo Sequencing and Assembly of four RNA samples consisting of *Brassica juncea* and *Sinapis alba* plants using next generation sequencing**
Specification	:	1. High quality total RNA should be extracted from the samples. 2. Read Length should be minimum 150bp paired end or more. Platform should be Illumina/Ion 3. To provide minimum 45-50 million paired end reads of >Q30. Low quality reads should be trimmed and sent. 4. Denovo assembly of data at various Kmer. Using Velvet, Oases, TopHat, Cufflinks. 5. Annotation of Assembled Transcripts to uniprot, pfam, NR DB. GO and pathway analysis, Deseq DGE, SSR prediction and SNP report. 6. Provide at least 6 publications (Co-authored and also acknowledged) to be provided for similar work on plant transcriptomes. 7. All parts of the sequencing work and analysis should be performed only in India. Sample should not be outsourced outside India. Proof of in house facility with installation certificate should be provided 8. Turnaround time should be mentioned while quoting. 9. Additional analysis of DGE, SNP, annotation and SSR should be carried out with already existing data of 8 similar organism. (*Arabidopsis thaliana* should be considered mainly) 10. Differential gene expression (DGE) (using previous data as control) , assembly at various Kmers, SNP, Annotation of contigs for transcripts using closest homology, Unigene cluster, SSR prediction, Pathway and gene ontology analysis. 11. Differential regulation graphs by dividing the obtained data into various classes according to the functional annotation. 12. Pathway analysis using KEGG 13. Pie charts doe GO, and COG. 14. Heat maps for differential expression of individual genes in broad classes. 15. Comparative classification of transcription factors and their fold changes. 16. Representative transcripts of all samples. 17. Fold changes expression resented in graph format for all the genes to compare between different treatments. 18. Statistical analysis of reads, contigs, transcripts and unigenes.
Quantity	:	Four samples
Last date & time for submission	:	12.01.2015 upto 2.00 p.m.
Date & time for opening of bids	:	12.01.2015 at 3.00 p.m.
Submission of Tender (Address)	:	Division of Plant Biology, Bose Institute, P-1/12, C.I.T. Scheme VII M, Kolkata 700054
Venue of bid opening	:	Seminar Room, Division of Plant Biology
For any query the interested bidders may contact (Dept./Section/Div./Unit)	:	Division of Plant Biology, Bose Institute, Kolkata 700054. Ph: 033 2569 3312
Warranty	:	Not applicable

Payment terms	:	After complete delivery in good condition
Delivery schedule	:	Sequencing and initial data analysis including digital gene expression studies, functional annotation and pathway analysis should be completed within 3 months from receiving the samples. The assistance has to be provided until publication of the result in peer reviewed Journal.
Bid security (earnest money deposit), if applicable	:	Nil
Submission of Performance Bank Guarantee (PBG), if applicable	:	N/A
Any other information (if applicable)	:	Please quote for four samples.
Name of the instrument / Item/ Service and submission of tender should be mentioned on the envelope positively.		
Director, 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.		

(S. Das)
Sr. Professor & In-charge, Registrar's Office