



राष्ट्रीय पादप जीनोम अनुसंधान संस्थान

(जैव प्रौद्योगिकी विभाग, विज्ञान एवं प्रौद्योगिकी मंत्रालय, भारत सरकार का स्वायत्त अनुसंधान संस्थान)

NATIONAL INSTITUTE OF PLANT GENOME RESEARCH

(An Autonomous Institution of the Department of Biotechnology, Ministry of Science and Technology, Government of India)

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संख्या: 9/2015/रा.पा.जी.अनु.सं./एस एण्ड पी

दिनांक: 21/5/2014

विषय / Subject: मुहरबंद कोटेशन का निमंत्रण / Invitation of Sealed Quotations

Sir,

We are interested to outsource “bacterial genome sequencing (1 sample) and RNAseq analysis of mixed (bacterial-fungal) transcriptome (4 samples)” as per the following specifications for our Institute.

Technical specifications and requirements

1. Genome sequencing of a bacterial strain: 1 sample

- Library preparation and genome sequencing
- QC of Library and Validation
- Generation of 2X150 PE reads by illumine technology using standard kits from the manufacturer (3.5 GB data with average quality score above Q20)
- Around 500X fold genome coverage
- Data Delivery in FASTQ format
- De-novo and reference curated genome analysis
- Raw data QC, quality filtering and read trimming
- De-novo assembly of contigs/scaffolds using suitable de-novo assemblers,
- assembly and depth statistics, curation of assembly using reference genome,
- Genome annotation, functional classification using GO, KEGG etc,
- identification of gene families of functional relevance (user defined),
- Transposable elements and retro sequences.
- Genome comparison with related bacterial species and phylogenomics analysis.
- Bioinformatics and post-analysis, should not be limited to the above mentioned descriptions, some of the requirement may change depending upon the initial leads; bioinformatics support is required until manuscript preparation and even to satisfy the reviewer's comment, if any.

2. Simultaneous RNA-Seq Analysis of a Mixed Transcriptome of bacteria and Fungus Interaction: 4 samples

- Library preparation and QC of four bacterial-fungal mixed samples
- Sequencing has to be done using Illumina technology (150bp paired-end) using standard Illumina kits/reagents
- At least 100 million reads (10 GB data) high quality filtered clean data (80% bases should have >Q30) should be provided per sample,
- Bioinformatics analysis requirements:-
 - Reference based transcriptome assembling, functional annotation and comparative genomic.
 - Origin of transcripts in a mixed pool; specifying the fungal and bacterial transcripts
 - Differently regulated genes and their classification based on gene ontology (GO) and KEGG
 - Identification of alternative spliced variants

Cont. 2

- Expression dynamics of differentially regulated bacterial and fungal genes at different stages of interactions
- Expression dynamics of some select gene family (user defined) during different stages of infections on different plants
- Bioinformatics and post-analysis, which should not be limited to the above mentioned descriptions, some of the requirement may change depending upon the initial leads; bioinformatics support is required until manuscript preparation and even to satisfy the reviewer's comment, if any

3. Design of analysis has to provided/presented along with this tender

4. Analysis and detailed results has to be presented to respective scientific group onsite

You are therefore requested to please send your offer along with a copy of PAN & Tin no. certificate and maximum discount that you will be able to offer in a **Sealed Envelope** duly super-scribed on top of envelope as "Quotation for **Outsourcing of Samples**" so as to reach to the undersigned latest by **12/06/2014 (3:00 p.m.)**, the same shall be opened on same day at **(3:30 p.m.)**.

धन्यवाद,

(कय एवं भण्डार अधिकारी)

Encl: Terms & Conditions (Annex – I)

Annexure – I

नियम और शर्तें:

- The quotations must accompany a Demand Draft amounting to ₹ 8,000/- (Rupees Eight Thousand only), being the EMD in the name of Director, NIPGR, New Delhi.
- The rates quoted by you for the said services shall be valid for a period of one year from the date of award letter and no requests for any increase in the rates will be entertained during the contract period. No advance payment will be made. In addition to this, Service Tax shall not be payable on the said services since NIPGR is exempt from payment of Service Tax as per GOI, Ministry of Finance, Department of Revenue, Central Board of Excise & Customs, Tax Research Unit Circular No. B1/14/2013-TRU dated September 19, 2013.
- The Director, NIPGR reserves the right to amend any of the terms and conditions contained in the Tender Document or reject any or all applications (offers) or not to award the contract to the lowest bidder without giving any notice or assigning any reason thereof. The decision of the Director, NIPGR in this regard will be final and binding.
- The successful tenderer shall be required to deposit an interest free amount equal to 10% of the tender value of the contract in the form of Demand draft as Performance Security after adjusting the EMD, within 10 days from the date of issue of award letter, which will be released after expiry of the defect liability period of the contract.
- The bids will be accepted in respect of those companies having successfully completed one similar work costing not less than ₹ 3,20,000/- or two similar works each costing not less than ₹ 2,00,000/- or three similar works each costing not less than ₹ 1,60,000/- and having annual financial turnover of ₹ 4,00,000/-, during the last three financial years ending March 2014. Similar works means, work related to sample sequencing using next generation sequencing technology in Government National Laboratories / Institutions / Universities and reputed Organizations, engaged in the area of Research Development. Intending tenderers must enclose documents such as Completion Certificates and Work / Supply orders / certified Balance Sheet / ITR Returns for three last financial years.

(कय एवं भण्डार अधिकारी)