



NAGALAND UNIVERSITY

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TENDER NOTICE

We are hereby inviting to submit the sealed quotation for the following services

- a. transcriptome sequencing and b. whole genome bisulfide sequencing- under Unit of Excellence in Biotechnology (UEXCEL) programme of DBT (Department of Biotechnology), Government of India, funded research project entitled- "Mechanistic Insights into the Therapeutic Propensity of Natural Products with Anti-oxidant and Anti-inflammatory Properties in *Drosophila* Model of Parkinson's Disease" as per details given below within 15 days from the date of notification.

Details:

A. Transcriptome sequencing: Sample Type: RNA/Tissue samples will be provided; Total RNA to be extracted from biological sample and library to be prepared as per standard procedures; 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; Library Type: illumina RNA library preparation; Library QC using Qubit, Tape station and qPCR to be used for measuring the quality and quantity of the library before sequencing; Read Length: 150x2 for RNA Sequencing to generate ~5 GB data per sample; Bioinformatics Analysis for Transcriptome/RNA Sequencing: Reference based alignment; Finding of differential expressed genes, RPKM/FPKM values and P value significance gene list, Annotations; Heat map and Clustering; GO analysis and Pathway analysis.

B. Whole Genome Bisulfite Sequencing: DNA should be treated for Bisulfite conversion for each sample; DNA Bisulfite library should be prepared for each sample; Sequencing should be done using 150 paired end chemistry to generate 50 X coverage (9-10 GB data/sample) on illumina platform; Analysis should be done to find methylated region and comparison across the different groups and correlate with transcriptome data; 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; Proof of Publications: Minimum 50 publications should be

cited for NGS and Analysis; Proof of lab facility: illumina installation certificate should be provided; Establishment of firm: Firm should be established in India 6 years before with NGS lab and experience in handling NGS projects and successful completion (Testimonial should be provided); Data should be delivered through secured server & HDD only. To maintain data confidentiality, firm should not write data in CDs/DVDs; Entire work should be completed within 8 weeks after samples pass the QC; Failure to submit quotation as per the technical specification may deprive the concerned firm from consideration.



(Dr. Sarat Chandra Yenisetti)

Principal Investigator