



Sher-e-Kashmir

University of Agricultural Sciences & Technology of Jammu
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EOI No: AUJ/CPC/2018- 19/EOI/657

Dated: 08/02/2019

Notice inviting Expression of Interest (EOI) for empanelment of vendors for Next Generation Sequencing Services

On behalf of the Vice-Chancellor, SKUAST-Jammu, Expressions of Interest is invited from the reputed firms/Institutions/Laboratories of International/National repute for Next Generation Sequencing Services including, but not limited to, RNA Sequencing (RNA-Seq); ddRAD-sequencing, genotyping-by-sequencing (GBS), Whole Genome Sequencing; Genome methylation sequencing; Epigenetic Profiling; Amplicon Sequencing; Exome Sequencing (Exome-Seq); Custom Targeted Sequencing; 16S/18S/ITS regions sequencing and related optional services. The detailed specifications as well as terms and conditions are mentioned in the attached Annexures available at www.skuast.org

Expressions of Interest (EOI) document can be obtained from the office of Chairman, CPC against payment of non-refundable tender fee of Rs. 1000/- in the shape of Demand Draft in favour of Comptroller, SKUAST-Jammu. EOI can also be downloaded from the University website www.skuast.org and the tender fee in the shape of DD shall have to be enclosed with the tender.

The EOI duly completed and sealed with firm profile must reach in the office of the Chairman, CPC (Dean, FoA, SKUAST-J, Chatha, Jammu 180009) by or before 01-03-2019 upto 4.30 p.m. The earnest money deposit of Rs. 5,000/- in the shape of CDR/FDR pledged in favour of the Comptroller, SKUAST-Jammu should be enclosed with EOI.

Sd/-

Member Secretary
(Chemicals and Glassware)

EOI for Next Generation Sequencing Services

1.	<p>RNA Sequencing (RNA-Seq)</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • mRNA enrichment and rRNA removal • Regular and strand-specific transcriptome library • 2x150 bp paired end sequencing • ≥25 Million reads per sample recommended
2.	<p>Whole Genome Sequencing</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • Paired end sequencing of different read lengths • ≥ 80% of bases with a ≥Q30 quality score recommended sequencing coverage
3.	<p>ddRAD sequencing</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • Restriction enzyme digestion (and validation) with two different enzymes • Paired-end library format with each read of atleast 100 bases • Atleast 250 MB of raw data per sample • ≥ 90% of bases with a ≥Q30 quality score recommended sequencing coverage • Sequence filtering, alignment and genome-wide SNP discovery
4.	<p>Genotyping-by-sequencing (GBS)</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • Enzyme validation for a given species • Paired-end library format with each read of atleast 100 bases • Atleast 250 MB of raw data per sample • ≥ 90% of bases with a ≥Q30 quality score recommended sequencing coverage • Sequence filtering, alignment and genome-wide SNP discovery
5.	<p>Genome methylation sequencing</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • 100bp paired end sequencing • Library preparation, including bisulfite treatment • ≥ 90% of clean bases with quality score of Q20 recommended sequencing coverage
6.	<p>Epigenetic Profiling</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • 50bp Single-end sequencing reads • Library preparation • ≥20 Million reads per sample recommended sequencing coverage
7.	<p>Amplicon Sequencing</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • ≥ 80% of bases with a ≥Q30 quality score recommended sequencing coverage
8.	<p>Exome Sequencing (Exome-Seq)</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • 100bp and 150bp paired-end sequencing • library construction and enrichment

	<ul style="list-style-type: none"> • $\geq 80\%$ of bases with quality score of $\geq Q30$ recommended sequencing coverage
9.	<p>Custom Targeted Sequencing</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • 100bp and 150bp paired-end sequencing • library construction and enrichment • $\geq 80\%$ of bases with quality score of $\geq Q30$ recommended sequencing coverage
10.	<p>16S/18S/ITS regions Sequencing</p> <p><u>Specifications:</u></p> <ul style="list-style-type: none"> • $\geq 80\%$ of bases with a $\geq Q30$ quality score recommended sequencing coverage

Optional Services:

- Sample may be in the form of tissue/cells instead of extracted nucleic acids, if required.
- Advanced and custom bioinformatics data analysis to be performed, if required.
 - Filtering of reads for high quality bases using parameters (Base quality score distribution, Sequence quality score distribution, Average base content per reads and GC distribution in the reads)
 - Alignment
 - Quantitative expression profiles
 - Detection of differentially expressed genes
 - Functional annotation
 - Spliced transcript analysis
 - Fusion gene analysis
 - RNA editing analysis
 - Gene ontology analysis
 - Pathway enrichment analysis
 - Hierarchical clustering analysis
 - Methyl-cytosine identification
 - Differential Methylated Region (DMR) analysis
 - Statistics of methylation level
 - SNP calling and annotation
 - SNP validation and comparison
 - SNP functionality and conservation prediction
 - SNP statistics per functional element
 - InDel calling and annotation
 - InDel validation and comparison
 - InDel statistics per functional element
 - CNV calling and annotation
 - Overlap paired-end reads
 - A rank curve, OTU annotation, profiling histogram, heat map and a phylogeny tree will be provided
 - Alpha diversity, Beta diversity, clustering and comparative analysis



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Registration of Vendors for Supplying Goods
(Format for Expressions of Interest)

Firm's Name: _____

Owner's Name: _____

Full Postal Address: _____
_____ City _____ State. _____ PIN

Email Address: _____ Website Address: _____

Contact Person's Name: _____

Contact No. : _____ Mobile No.: _____

Fax No.: _____ Email id: _____

CST / GST / TIN No./Registration No. : _____

PAN of the firm: _____

Current Bank Alc No. : _____

(Statement of last twelve months should be enclosed)

Annual Turnover for last 3 years:

(Audited Statements of Accounts of last three financial Years should be enclosed)

List of the Clients (with Contact person, Mobile/ Tel No, Email) being served during the last three years:

Details of the DD (Processing Fee) _____

Details of CDR/FDR (E MD) _____

Signature with Seal: _____

Date:

ACCEPTANACE CERTIFICATE

*I.....(designation).....,of
(Name of the Company)..... hereby
accept the above mentioned Terms & Conditions in Toto for empanelment of
Vendors for “Next Generation Sequencing Services“. My tender/bid is complete
and I submit my firm bid with due validity as required.*

**Signature of the authorized person of the
Bidder with Company Seal with date**

Terms and Conditions for Empanelment

A. Pre- eligibility (The copies of the following documents must be enclosed with the EOI).

- i. Copies of Registration Certificate of GST
- ii. The copy of the relevant Quality certificates (ISO).
- iii. PAN Card of the firm, if any
- iv. List of Sequencing Services being Provided
- vii. Undertaking of not being blacklisted by any Govt. Agency/ department.
- viii. List of clients being served (Agricultural Universities/ Educational Institutes/National Institutes/others separately in the last three years) with Contact name & address with mobile no.
- ix. Bank Details on letter head along with cancelled cheque.
- x. Offers should be accompanied by a DD of Rs.1000/- (non-refundable) in favour of "Comptroller, SKUAST-Jammu" payable at Jammu towards the processing fee.
- xi. Offers should be accompanied by a CDR/FDR of Rs.5,000/- (refundable) pledged in favour of "Comptroller, SKUAST-Jammu" towards Earnest Money Deposit.

B. Services Related Terms and Conditions:

- i. Sample should be collected from the University/Institute.
- ii. Raw data and bioinformatics analysis in standard file formats
- iii. Analysis report containing complete methodology from Sample QC to data analysis with all the tables, figures & results.
- iv. Training for advanced bioinformatics analysis should be provided to the concerned, if desired.
- v. Data storage and delivery through external hard drive.
- vi. Turnaround time should be ≤ 40 working days from sample QC acceptance to filtered raw data availability.

C. General terms & conditions

1. The EOI alongwith eligibility documents must be delivered in the office of the Chairman, CPC (Dean, FoA) SKUAST-J, Main Campus, Chatha, Jammu (J&K)-180009 in sealed envelop on or before _____ upto 4:30 PM by speed post/registered post/ by hand duly superscribed "**Eoi for Next Generation Sequencing Services**". If the office happens to be closed on the last date of receipt as specified, the same will be received on the next working day at the same time and venue.
2. Offers without processing tender Fee and EMD shall summarily be rejected.
3. The validity of empanelment will be initially for one year extendable upto 3 years depending upon the performance of the empanelled firms.
4. The decision of SKUAST- Jammu on both the empanelment and award of specific order shall be final and no queries or appeal for review shall be entertained.

5. SKUAST-JAMMU reserves the right to cancel the panel and a specific job at any time without assigning any reason, whatsoever.
6. Vendors once empanelled, shall have to promptly reply to all the enquiries, execute orders as per the order terms of SKUAST-JAMMU and keep the Institute informed of new products/ developments / innovative ideas that shall help reduce the cost and improve quality, reliability, etc.
7. Two-part bids can be done where technical screening/clear technical specifications are not available. In such cases vendors will be asked to submit both techno commercial and price bids separately. Price bids of technically accepted bids will only be opened.
8. The EOI should be inclusive with all pre-eligibility documents.
9. In case of empanelled vendor is found in breach of any terms & condition(s) of SKUAST-JAMMU or supply/work order, at any stage during the course of supply / installation or warranty period, the legal action as per rules/laws, shall be initiated against the vendor and EMD/Security Deposits shall be forfeited by SKUAST-JAMMU, besides debarring and blacklisting the vendor concerned for further dealings with SKUAST-JAMMU.
10. The vendor should not assign or sublet the empanelment or any part or it to any other vendor in any form. Doing so shall result in termination of empanelment.
11. In all future correspondence with SKUAST-JAMMU, empanelled vendors are required to quote the Registration No.
12. Incomplete expressions of interest or expressions not in proper format or received after the due date shall not be entertained.
13. The firms registered by SKUAST-Jammu shall have to execute an agreement with the University within 15 days from the date of registration.
14. In case of any disputes in this connection, the decision of the Vice-Chancellor, SKUAST-Jammu shall be final and binding.

Sd/-

Member Secretary (C&G)