



# SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY

Thiruvananthapuram- 695011, India

(An Institute of National Importance under Govt. of India)

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Enquiry No. H/ IMP-IND/ 2019-20/ BCD/ 87

Dated 28/05/2019

Due Date 20/06/2019

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Dear Sirs

Sealed quotations are invited for the supply of the following stores under the following terms & conditions:

Sl.No	Our Code	Description	Quantity	Unit	Pack
1	EQSEQU012T	NEXT GENERATION SEQUENCER	1	NO	1

Model No : ILLUMINA NextSeq 550

A HIGH-RESOLUTION BENCHTOP GENOME SEQUENCING PLATFORM CAPABLE OF PERFORMING DIFFERENT TASKS INCLUDING DE NOVO SEQUENCING, STRUCTURAL VARIATION DETECTION, WHOLE EXOME SEQUENCING, SMALL WHOLE GENOME SEQUENCING,, CHIP-SEQUENCING, TRANSCRIPTOME SEQUENCING, AND INTEGRATED MICROARRAY SCANNING. IT SHOULD PRODUCE HIGH QUALITY, ACCURATE AND HIGHLY MAPPABLE DATA.

### Detailed Specification

- THE SYSTEM SHOULD HAVE A REASONABLE RUNTIME TO PERFORM INTEGRATED MASSIVELY PARALLEL SEQUENCING OF DNA/RNA LIBRARIES LOADED DIRECTLY ON THE SYSTEM AND SHOULD OFFER BOTH SINGLE END AND PAIRED END SEQUENCING.
- THE SEQUENCING CHEMISTRY SHOULD EMPLOY ROBUST SEQUENCING BY SYNTHESIS METHOD USING NUCLEOTIDES WITH REVERSIBLE TERMINATOR AND SHOULD MIMIC THE NATURAL BIOLOGICAL CHEMISTRY AND SIMULTANEOUS ADDITION OF ALL FOUR BASES IN THE SEQUENCING REACTION FOR COMPETITIVE ADDITION TO DNA TEMPLATE.
- THE SINGLE INSTRUMENT PERFORMS CLONAL AMPLIFICATION, SEQUENCING, AND PRIMARY DATA ANALYSIS (E.G. BASE CALLING). IT IS DESIRABLE FOR THE INSTRUMENT TO PERFORM PAIRED-END RUN AND A READ LENGTH OF 150 BASE PAIRS OR HIGHER. ALSO, THE SYSTEM SHOULD OFFER FLEXIBLE READ LENGTH TO SUPPORT DIFFERENT APPLICATIONS, LIKE: 2X50 BP, 2X100 BP, 2X150 BP.
- COMPLETE SEQUENCING AUTOMATION FOR CLUSTER GENERATION, TEMPLATE AMPLIFICATION, CHIP LOADING & BASIC BIOINFORMATICS ON BOARD.
- THE SEQUENCING TECHNOLOGY SHOULD OFFER ACCURATE SEQUENCING OF HOMOPOLYMERS AND REPETITIVE REGIONS IN THE GENOME OF 15 BASES OR MORE AND HIGHEST READ QUALITY SCORE OF Q30 FOR MORE THAN 75% OF THE BASE CALLS HAVING >99% ACCURACY ENSURING QUALITY CONTROL STEPS.
- THE SYSTEM SHOULD OFFER A HIGH DATA OUTPUT OF 100GB OR HIGHER (AT LEAST 300 MILLION CLUSTERS) IN A SINGLE RUN.
- SHOULD BE AN OPEN SYSTEM THAT SUPPORTS REAGENTS AND MATERIALS FROM THIRD PARTY VENDORS.
- COMPUTER (INSTRUMENT CONTROL AND ADDITIONAL ONE SYSTEM FOR DATA STORAGE AND ANALYSIS). THE MANUFACTURER MUST PROVIDE A SUITABLE BRANDED COMPUTER/LAPTOP WITH THE SOFTWARE'S PRE-INSTALLED TO RUN THE NGS PLATFORM. COMPUTER: 16GB RAM OR BETTER, 1.5 TB STORAGE AND AN ADDITIONAL 12 TB OR MORE, 20-INCH LED MONITOR, WIRELESS KEYBOARD AND MOUSE, LASER PRINTER, OPERATING SYSTEM LINUX (2.6 GHZ OR HIGHER) WITH LICENCE KEY. DATA ANALYSIS SOFTWARE AND FREE UPDATE LICENCE KEYS.
- THE SYSTEM SHOULD INCLUDE LATEST SOFTWARE, HARDWARE, ACCESSORIES AND TECHNOLOGY AVAILABLE.
- THE MANUFACTURER SHOULD ALSO PROVIDE KITS AND REAGENTS FOR LIBRARY PREPARATION FROM DNA/RNA. A. RNA/MIRNA FROM BLOOD: 48 SAMPLES B. NEURODEGENERATIVE DISEASE PANEL: 48 SAMPLES C. CARDIOVASCULAR DISEASE PANEL: 48 SAMPLES D. WHOLE EXOME SEQUENCING STARTING FROM DNA: 10 SAMPLES E. TRANSCRIPTOME GENE EXPRESSION PANEL: 24 SAMPLES.
- THE SYSTEM SHOULD COME WITH AN OPTION TO SEND DATA DIRECTLY TO A CLOUD-BASED SERVER FOR DATA STORAGE, SHARING AND ANALYSIS.



- ALL THE NECESSARY KITS, REAGENTS AND OTHER CONSUMABLES NEEDED FOR THE TEST RUNS DURING THE INSTALLATIONS WILL BE PROVIDED BY THE SUPPLIER AT NO EXTRA COST. ALL NECESSARY KITS, REAGENTS AND OTHER CONSUMABLES NEEDED FOR BOTH THE TRAININGS WILL BE PROVIDED BY THE SUPPLIER AT NO EXTRA COST.
- THE VENDOR SHOULD SUPPLY SUITABLE BRANDED UPS WITH AT LEAST ONE-HOUR BACKUP ALONG WITH THE SYSTEM.
- THE SUPPLIER MUST INSTALL THE COMPLETE SYSTEM AT THE SPACE PROVIDED BY SCTIMST, TRIVANDRUM AND DEMONSTRATE A SUCCESSFUL INSTALLATION USING TWO COMPLETE TEST RUNS. THE TEST RUNS MUST DEMONSTRATE THE PROMISED QUALITY AND OUTPUT AS SPECIFIED IN THE PROPOSAL. ANALYSIS OF THE SEQUENCING DATA LIKE QUALITY CHECK, DE-MULTIPLEXING, BASE CALLING, ETC. MUST BE DEMONSTRATED.
- ADEQUATE TRAINING BY TRAINED ENGINEERS AND SPECIALISTS USING ONE COMPLETE RUN SHOULD BE PROVIDED BY THE SUPPLIER TO USERS INCLUDING FACULTIES, TECHNICAL STAFF AND SOME STUDENTS, AT NO EXTRA COST
- THE VENDOR SHOULD PROVIDE ALL ANCILLARY EQUIPMENT REQUIRED FOR SAMPLE PREPARATION AND SEQUENCING AS SPECIFIED BELOW.
  1. ULTRASONICATOR FOR DNA SHEARING [OPERATION AT ULTRASOCIC RANGE (500KHZ), INTEGRATED TEMPERATURE CONTROL (NO EXTERNAL COOLING EQUIPMENT), AND THE PROCESS SHOULD BE ISOTHERMAL, SAMPLE VIALS AND ACCESSORY KITS FOR SHEARING CHROMATIN INTO DIFFERENT DNA FRAGMENT LENGTHS BETWEEN 150 AND 5,000 BP, SUITABLE COMPUTER AND APPLICATION SOFTWARE SHOULD BE PROVIDED, UPS WITH 30 MINS BACKUP SHOULD BE PROVIDED ALONG WITH THE INSTRUMENT]
  2. CHIP-BASED CAPILLARY ELECTROPHORESIS MACHINE [REPLACEABLE ELECTRODE CARTRIDGES, SIMULTANEOUS ELECTROPHORESIS OF DNA/RNA ON EXCHANGEABLE CARTRIDGE FROM 1 TO 10 SAMPLES OR MORE, SAMPLE VOLUME REQUIRED SHOULD BE LESS THAN 5 MICROL, START-UP REAGENTS AND CHIPS, THE KIT/SOFTWARE SHOULD PROVIDE SIZE INFORMATION OF THE FRAGMENTS AND ALSO ABLE TO PROVIDE RIN (RNA INTEGRITY NUMBER) OF RNA SAMPLES, COMPATIBLE COMPUTER WITH SOFTWARE AND B/W LASER PRINTER. THE SUPPLIER SHOULD PROVIDE UPS WITH 30 MINS BACKUP]
  3. PLATE/TUBE HEATING SYSTEM (2 NUMBERS) [COMPACT, FLEXIBLE HIGH PRECISION TUBE AND PLATE HEATING SYSTEM WITH HEATED LID ALONG WITH HEATBLOCK INSERT AND REGULATES SAMPLE TEMPERATURES  $\pm 0.1^{\circ}\text{C}$ . TEMPERATURE RANGE: AMBIENT  $+5.0^{\circ}\text{C}$  TO  $99.0^{\circ}\text{C}$ , COMPATIBLE PLATE INSERT FOR HEATING SYSTEM (2 NUMBERS) SHOULD BE SUPPLIED]
  4. MAGNETIC RACK FOR 1.5-2 ML MICROCENTRIFUGE TUBES [16 OR MORE STANDARD 1.5–2 ML MICROCENTRIFUGE TUBES]
  5. MAGNETIC STAND 96 WELL [U-BOTTOM MICROPLATES AND 0.2 ML PCR PLATES WITH NO ADDITIONAL ACCESSORIES. EASY AND FAST MAGNETIC SEPARATION IN AS LITTLE AS 30 SECONDS]
  6. TRANSILLUMINATOR [BLUE LED TRANSILLUMINATOR WITH A VIEWING SURFACE DIMENSIONS OF 25 X 22 CM OR MORE, SHOULD BE SUITABLE FOR VISUALIZATION OF A WIDE RANGE OF FLUORESCENT SAMPLES INCLUDING SYBR GREEN, GELSTAR, GELGREEN, SYPRO RUBY, PROQ DIAMOND, FLUORESCIN, VARIOUS GFPS ETC, OPTICAL: MULTIPLE HIGH INTENSITY BLUE LEDS, ACCESSORIES SUCH AS AMBER SCREEN AND DR VIEWING GLASSES SHOULD BE INCLUDED.
  7. REFRIGERATED MICROPLATE CENTRIFUGE [MAXIMUM RCF: 30,130 X G (17500 RPM), ROTORS FOR MICROPLATES (96 WELL OR MORE) AND 1.5/2 ML (24 PLACES OR MORE), LCD DISPLAY, TIMER WITH CONTINUOUS RUN FUNCTION]
  8. REFRIGERATED BENCHTOP CENTRIFUGE WITH SWING-OUT ROTOR [SPEED: 3000 X G (4400 RPM), FAST PRECOOLING FUNCTION, CAPACITY: 4 X 100 ML, LCD DISPLAY, TIMER: 0 – 99 MIN, WITH CONTINUOUS RUN FUNCTION, IMBALANCE DETECTION, AUTO SHUT-OFF (AFTER 8 HOURS) OF NON-USE TO REDUCE ENERGY CONSUMPTION AND EXTEND LIFE]
  9. STROBOSCOPE [BRANDED STROBOSCOPE FOR PROCESS MONITORING, INSPECTING AND MEASURING THE SPEED OF THE EQUIPMENT].

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**Remarks**

• Three years warranty for all the instruments and on demand repair services when ever required



Yours faithfully

SR. PURCHASE & STORES OFFICER

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As part of the implementation of E-Payment, it is requested that you may register online and provide all details through our website address

<https://www.sctimst.ac.in/VendorsPortal/registration?vid=P20180780821469483449534128>

After registering; kindly take a print out of your submitted details in your company's letter head duly signed by your authorized signatory with stamp office seal and the same may be forwarded to "The Accounts Officer, SCTIMST, Thiruvananthapuram-695011, Kerala, India" superscribing " E-Payment registration " on cover.

For help, please visit the link

<https://www.sctimst.ac.in/VendorsPortal/RESOURCES/SCTIMST-Vendors-Portal-Guidelines.pdf>

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### **Terms and Conditions**

1. The quotation must be submitted as per the below terms and conditions and should be free from corrections/erasures. In case there is any unavoidable correction(s), it should be properly attested. If not the quotation(s) will not be considered. Further, quotation(s) written in pencil will not be considered.
2. Sealed quotation(s) should be superscribed with enquiry No and due date . Quotation(s) will be opened either on due date or on the next working day. The sentence "NOT TO BE OPENED" before (due date and time of tender opening) is also to be printed on these envelopes. If the outer envelope is not sealed and marked properly as stated above, the Institute will not assume any responsibility for its misplacement, premature opening, late opening, and so on.
3. This Institute reserves the right to accept the offer by individual items and reject any or all tenders without assigning any reason thereof and does not bind itself to accept lowest quotations.
4. Participation in this tender is by invitation only and is limited to the selected Procuring Entity's registered suppliers. Unsolicited offers are liable to be ignored. However, suppliers who desire to participate in such tenders in future may bring it to the notice of Procuring Entity and apply for registration as per procedure.
5. Manufacturer, accredited agents or authorized distributor can only participate in the tender. Manufacturer's name and country of origin of materials offered must be clearly specified. The Tenderer should furnish evidence to prove the status of Manufacturer, accredited agents or authorized distributor. In case the firm quotes imported brands on behalf of their foreign principals / manufacturers which comes under the provisions of Drugs & Cosmetics Act & Rules, CDSCO certificate/license issued by CDSCO must be attached. In the case of indigenous items, the certificate issued by the State Drug Controller Certificate may be attached.

Please quote whether your organisation is large scale industry or small scale industry. If you have



NSIC/MSE/MSI/DGS&D Certificate, please attach it to the quotation. Mention your registration details

6. Complete details and ISI specification if any must accompany the quotation. Make/brand of the item shall be stated wherever applicable. If you have got any counter offer as suitable to the material required by this institute, the same may be shown separately.
7. Samples must be submitted wherever specified along with the quotations. Samples must be carefully packed, sealed and labeled clearly with enquiry number, subject and sender's name for easy identification. Rejected samples will be returned at your cost if insisted.
8. All drawings sketches and samples, if any, sent along with the enquiry (ies) must be returned along with quotations duly signed.
9. All supplies are subject to inspection and approval before acceptance. Manufacturer/ supplier warranty certificates and manufacturer/Government approved lab test certificate shall be furnished along with the supply, wherever applicable. In case of non-acceptance, the materials should be taken back within seven days of intimation with the risk of supplier and the rejected items should be replaced within ten days from the date of non-acceptance.
10. This Institute reserves the right to modify the quantity specified in this enquiry.
11. In case of no quotes against a particular item in the tender(s), this should be clearly mentioned along with reasons. The prices quoted should not be revised till the supplies are completed. The rates should be quoted in words and figures. Rates quoted should be free delivery at destination including all charges otherwise the quotation is likely to be rejected. Prices quoted for free delivery at destination will be given preference. If there is no indication regarding the FOR, in the quotation, then it will be considered as FOR destinations. Price quoted should be net and valid for a minimum period of six months from the date of opening of the quotation. GST applicable should be mentioned separately in support of HSN code. If no indication regarding GST is recorded in the quotation, the GST will be considered as included in the quote(s).
12. In case the items in the enquiry are covered by any rate contract or running contract finalised by the DGS&D or any other state or central Government, it should be specified in your quotation and accepted contract rates should also be mentioned. It should be also confirmed whether the tenderer could supply at the RC rates outside rate contract.
13. The quotation(s) should be accompanied with illustrated catalogue, brand, model number, make, literature, write up where ever applicable.
14. Delivery period required for supplying the material should be invariably specified in the quotation. The consignment should be delivered at Main Store, SCTIMST, Trivandrum between 9:00 AM to 4 PM during the working days.
15. In case your quotation is accepted and order is placed on you, the supply against the order should be made within the period stipulated in the order. The Institute reserves the right to recover any loss sustained due to delayed delivery by way of penalty. Failure to supply the material within the stipulated period shall entitle Procuring Entity for the imposition of penalty without assigning any reasons @ 1/2% (half percent) of the total value of the item covered in order as penalty per day subject to a maximum of 5% (five percent) unless extension is obtained in writing from the office on valid ground before expiry of delivery period.



16. If the deliveries are not maintained as per the schedule prescribed and due to that account Procuring Entity is forced to buy the material at your risk and cost from elsewhere, the loss or damage that may be sustained there by will be recovered from the defaulting supplier.

17. Dispute clause: Any dispute relating to the enquiry shall be subject to the jurisdiction of the court at Trivandrum only.

18. Our normal payment terms are 100% (hundred percent) through Electronic Transfer (NEFT) within 30 (thirty) days on receipt and acceptance of material at our site in good condition or satisfactory installation and commissioning of the equipment as the case may be in respect of INR quote.

19. While quoting the rates for Equipments, the following are mandatory:

(a) **Warranty:** Minimum 3 years from the date of installation and successful commissioning of the system

(b) **Comprehensive Maintenance Contract (CMC) :** 5% of order value in INR value with annual escalation of 5% after warranty period

(c) **Annual Maintenance Contract (AMC) Labour:** 2.5% of order value in INR value with annual escalation of 5% after warranty period.

(d) **List of essential spares:** If the equipment contains any essential spares and consumables, the price should be frozen for minimum 3 years after warranty period. The price should be attached separately.

(e) **Installation and Commissioning:** Supplier should undertake installation, commissioning and demonstration at our facility free of charge

(f) If the item involve softwares, tenderer should obtain software license in the name of "Director, SCTIMST" and the paper license / email license to be transferred to the name of Institute.

20. In case of foreign quote(s), payment will be made

(i) via wire transfer after the receipt of item in good condition and commissioning

(ii) through irrevocable Letter of Credit after receiving Bank Guarantee / Security Deposit @ 10% of purchase value valid for a period of 60 days beyond the completion of all contractual obligation of the supplier including warranty.

(iii) proforma invoice in triplicate should mention whether Ex-Works / FOB / CIF (Trivandrum), For CIF (Trivandrum) rates for Air freight & Ocean Freight should be separately indicated

(iv) Agency commission, if any, should be payable to Indian Agent at the rate prescribed by the foreign tenderer as per the quote.

21. For all supplies / contract above rupees one lakh, the successful tenderer should furnish a performance guarantee / security deposit @ 10 percent of purchase order value excluding GST against the item with warranty and 5 percent of purchase order value excluding GST against items without warranty in the form of Fixed Deposit or Bank Guarantee from a nationalised bank having a validity period of 60 days beyond the completion of all contractual obligations of the supplier.

In case the quote is not according to the above terms and conditions, the same will be summarily rejected.



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