ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-29.
STORES SECTION (DO)

Dated 13.10.2017

Ref. No. 28/Stores (DO)/Pathology/PAC/2017-18/FSC

Sub:- Purchase of Automated DNA Sequencer/ Capillary Based Sequencer for the Department of Pathology, (AIIMS), New Delhi-110 029, on proprietary basis **Inviting comments thereon.**

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The Institute is in the process to purchase **Automated DNA Sequencer/ Capillary Based Sequencer** for the **Department of Pathology**, (AIIMS), New Delhi from **M/s Thermo Fisher Scientific, USA through M/s Vision Diagnostic (I) Pvt. Ltd. New Delhi,** on proprietary basis. The PAC Certifications by M/s. Thermo Fisher Scientific as well as the user department are attached.

The above documents are being uploaded for open information to submit objections, comments, if any, from any manufacturer regarding proprietary nature of the equipment/item within issue of 15 days giving reference No. **28/Stores (DO)/Pathology/PAC/2017-18/FSC.** The comments should be received in office of Stores Officer (DO), Store Section (DO), Animal House Building, Near Biotechnology Building at AIIMS on or before **29.10.2107** upto **12.30 p.m.**, failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

STORES OFFICER (FSC)

Encl: Related documents enclosed.

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
DEPARTMENT OF PATHOLOGY
Ansari Nagar New Delhi:- 110029.

S.O.No. /Path/Plan/2017-18 Date. 21.08.2017

Sub:- **Automated DNA Sequencer /Capilary Based Sanger Sequencer under Proprietary basis.**

The subject items are urgently needed for use in Path Lab in department of Pathology. The item is Proprietary item of M/s Applied BioSystem Part of Thermo Fisher Scientific, USA, and M/s Vision Diagnostic (India) Pvt. Ltd., Delhi, is authorized dealer. The total cost comes to Rs.1,43,21,424/- It is proposed that the order may be given to the above noted firm proprietary certificate authorization rate certificate are enclosed.

Before we place the order to the firm, H.O.D may kindly accord expenditure sanction of Rs.1,43,21,424/- to meet the urgent requirement of this department.

Before we place the order to the firm forwarded to the Stores Section (DO) for necessary action, the Budget compilation Section book the funds to the extent of **Rs.1,43,21,424/-** in favour of M/s Vision Diagnostics (India) Pvt. Ltd. New Delhi. Funds are available under the head of **Mach & Equip (Plan) 2017- 2018 A/c Code No:401-01-001** Department of Pathology.

Store Section may please necessary action for a copy of the Catalogue/Literature/Technical Details is enclosed.

Encl as above

A R Mridha

Dr. Asit R. Mridha
Assoc. Prof. of Pathology
Asstt Officer-In-Charge Store

Dr. Ruma Ray
Prof. of Pathology
Asstt Officer-In-Charge Store

Chitra Sarkar

Dr. Chitra Sarkar
Prof. of Pathology
Officer-In-Charge Store

PROF& HEAD OF PATHOLOGY

STORE SECTION (DO):-

Since the cost of Equipment is more than 1 APP i.e. 43 Lakhs APP. may put it in M.T. Review meeting For Approval before process.

SO (PO) 25/8/17 S.O. 25/8/17 DD (A) CPO 25/8/17 25/8/17 25.8.17

Automated DNA Sequencer (01No)

1. Fully automated capillary, fluorescence-based DNA Sequencer
2. Only licensed version of the system to be quoted along with user license to perform the sequencing by Sanger.
3. Number of capillaries: 8 Capillaries operating in parallel and must be upgradable to 24 capillaries to meet future throughput. Employ uncoated capillary arrays that use bare silica capillaries with useful life that exceeds 160 runs.
4. Application: Should be able to perform sequencing, Re-sequencing, Long Read Sequencing, Fragment analysis applications like SSR, , AFLP Plant & Microbial Finger printing, Microsatellite, Long Sizing, SNP Validation and screening, Linkage analysis.
5. Excitation source: Single line 505 nm solid state long life laser utilizing a standard power supply And without heat removal ducting.
6. Dye detection: Cooled CCD detection technology and a spectrograph for color separation. System must be able to detect and analyze 6 fluorescent dyes simultaneously for DNA fragment analysis.
7. Capillary illumination: Simultaneous dual-side illumination detection system to maximize signal uniformity and sensitivity that in turn reduces the requirements placed on the user for sample preparation and cleanup.
8. Tracking of consumable: Radio-Frequency identification technology to tracks key consumables data.
9. Heating/cooling: Active temperature cooling/heating that can maintain temperatures from 18°C to 70°C.
10. Sequencing throughput :> 280 samples/day having 850bp read length with QV20,
11. Electrophoresis Voltage: Up to 20 kV.
12. System should be provided with data analysis system.
13. Software: The vendor must supply software that are optimized for the instrument in the area of de novo, Re-sequencing, Long Read Sequencing, and comparative sequencing, Fragment analysis applications like SSR, ISSR, AFLP Plant & Microbial Finger printing, Microsatellite, Long Sizing, SNP Validation and screening, Linkage analysis.
14. Real time analysis: System software should allow real-time date quality evaluation providing immediate access to base-called or size called date to make decision about the quality of data as it is generated.
15. System should be open to accommodate primers from any third party.
16. Consumables: Applications-specific kits and sequencing reagents required to perform the sequencing

    by sanger should be manufactured and available from the same supplier.

17. Free of cost system installation and operator training performed by a vendor service engineer.
18. The Vendor should have a good service and application support back up along with instruments to provide an effective application related troubleshooting and support .The vendor should provide Application Training on the operation of the instrument, chemistry options and software in there regional lab.
19. Vendor should have at least 100 installations (includes all the available models) in India.
20. Suitable UPS for running the system.
21. Electrical requirement: 220 volt, 50 Hz.
22. **Warranty**: 5 years comprehensive including spares
23. Penalty clause -In no case instrument should remain in non-working condition for more than 48 hours, beyond which a penalty of 2% of machine cost will be charged per day
24. Undertaking from specification committee stating that the specifications are broad based, general in respect to the requirement of the instrument and not made to suit any particular firm or brand.

Dr. S. K. Panda
(Prof. & Head (Chairman)
Dept of Pathology

Dr. Chitra Sarkar
(Prof. of Pathology)
Officer-In-Charge Store

Dr. S. Datta Gupta
(Prof. of Pathology)

Dr. Ruma Ray
(Prof. of Pathology)
Asstt. Officer-In-Charge Store

Dr. V. Iyer
(Prof. of Pathology)

Dr. Sandeep Mathur
(Prof. of Pathology)

Dr. Asit R. Mridha
(Assoc. Prof of Pathology)
Asstt. Officer-In-Charge Store

Dr. Prasenjit Das
(Assoc. Prof. of Pathology)

Dr. Deepali Jain
(Assoc. Prof of Pathology)

Dr. Saumyaranjan Mallick
(Asstt. Prof. of Pathology)

Prof. Gita Satpathy Panda,
(Prof. & Head)
Dept of Microbiology

Dr. Kalpana Luthra
(Prof. of Biochemistry)

Dr. Amit Lathwal
Med. Superintendent, AIIMS
Or Representative

ALL INDIA INSTITUTE OF MEDICAL SCIENCE
ANSARI NAGAR, NEW DELHI-110029
PROPRIETORY/SPECIFIC BRAND GOODS CERTIFICATE

1.	Item/Type/Model No. required along with specification	: ABI PRISM 3500 DNA Sequencer
2.	Is the item a space part attachment or accessory for an existing equipment	: No
3.	Name of the manufactures/supplier of the item proposed by the Indentor	: Vision Diagnostic (I) Pvt. Ltd. is Sole Distributor of M/s Thermo Fisher Scientific
4.	Are they sole manufacturers/sold distributors of the item	: Yes
5.	Is there any other item with similar/ equipment specification available in The market to meet the job requirement envisaged. If the answer is yes, why the same can't be procured. Demanding officer should bring out comparative functional advantages/cost effectiveness of the recommended item form these offered by other.	: No
6.	What were the efforts made to locate alternative Source of supply or use other substitutes.	: N/A
7.	Why open/limited tender can't be resorted to, for locating alternative source.	: Proprietary Item, No other source is available.
8.	Are the proprietary item certifying that the rates are reasonable or not.	: Yes, (Letter enclosed)
9.	Any other justification for procuring item From single source.	: There is no other source or company available. List of proprietary features attached separately in page no-2.

Signature of Indenter
(Demanding Officer)

COUNTERSIGNE
(Head of the Department)

I certified that the item at Sr. No.1 above is required to be procured on single tender basis as the source of supply is definitely known/the specified brand proposed was advertages in meeting our functional requirement and limited tender system could be dispensed with as they would serve no useful purpose in this particular case.

(Strike out whichever is not applicable)

ALL INDIA INSTITUTE OF MEDICAL SCIENCE
ANSARI NAGAR, NEW DELHI-110029

PROPRIETORY/SPECIFIC BRAND GOODS CERTIFICATE

Justifications:

Sanger Sequencing is the most accurate, definitive method for identifying genetic variation, and Applied Biosystems capillary electrophoresis platforms are the industry standard, providing the most reliable, efficient, and widely published technology for DNA sequence analysis. The 3500 Series, used in combination with Applied Biosystems BigDye Cycle Sequencing Kits, exceeds expectations by delivering more automation, performance, data quality checks, and ease of operation than ever before.

The 3500 Series offers easy conversion between applications with minimal user intervention. Run modules for the 3500 Series are optimized for speed, accuracy, and reproducibility and give a range of options for read length. In addition, sequencing modules have been developed specifically for samples prepared with the BigDye XTerminator Purification Kit, yielding improved sequence quality.

Designed to detect up to 6 fluorescent dyes simultaneously, the 3500 Series will enable even higher levels of multiplexing for fragment analysis applications, delivering increased levels of throughput and more data points per run, which can lower the cost per sample. For demanding DNA fragment analysis applications, a combination of advanced optical manufacturing processes, an optimized reagent for normalization, and specifically designed algorithms delivers substantial improvement to signal uniformity without increasing run cost.

There are several US patent are available for this equipment's few are mentioned here- 5171534, 5332666, 5567292, 5821058

Proprietary Feature.

The system uses internally uncoated capillaries (an array of 8 capillaries) with patented Performance Optimized Polymer, which enhance the capillary life and run time considerably. It also has a provision optionally to upgrade from 8 capillary to 24 capillary systems to meet the future throughput.

The system is a fully automated platform with 96 well Auto sampler, which provides complete walk away automation.

3. The system detects and analyzes 6 fluorescent dyes simultaneously. The detection system composed of a spectrograph and a peltier –cooled charged coupled device (CCD) and provides multicolor detection.

Software generated "virtual filters" for fluorescent detection and it will readily accommodate new dyes and applications as they become available without requiring changes in the optical hardware.

The system is capable of running "one polymer one array" for both the sequencing and genotyping application, enabling the user to seamlessly switch between sequencing and fragment analysis runs, even in the same plate.

Having Radio-Frequency identification technology to tracks key consumables data.

The system is capable of running 6-dye chemistry for genotyping applications and uses the sixth generation Big Dye Terminator version 1.1 & 3.1 chemistry for the sequencing applications.

Signature of Indenter
(Demanding Officer)

COUNTERSIGNE
(Head of the Department)

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Committee Member Signature:-

ThermoFisher
SCIENTIFIC
world leader in serving science

Invitrogen Bioservices India Pvt.Ltd
372, Udyog Vihar Phase- II,
Gurgaon – 122 016. Haryana, India
T +91 124 6722800. F +91 124 6722850, 851
www.thermofisher.com
CIN: U73100KA2004PTC035330

TO WHOM-SO-EVER IT MAY CONCERN

Proprietary Certificate

This is certified that the **ABI PRISM 3500** Genetic Analyzer/DNA Sequencer having the part number 4405673 by M/s Applied Biosystems brand, (Part of Thermofisher scientific) and US patent number 5171534, 5332666, 5567292, 5821058 has the following proprietary/unique features combined in a single instrument system:

1. The system uses internally uncoated capillaries (an array of 8 capillaries) with patented Performance Optimized Polymer which enhance the capillary life and run time considerably. It also has a provision optionally to upgrade from 8 capillary to 24 capillary system to meet the future throughput.
2. The system is a fully automated platform with 96 well Auto sampler, which provides complete walk away automation.
3. The system detects and analyzes 6 fluorescent dyes simultaneously. The detection system composed of a spectrograph and a peltier –cooled charged coupled device (CCD) and provides multicolor detection.
4. Software generated "virtual filters" for fluorescent detection and it will readily accommodate new dyes and applications as they become available without requiring changes in the optical hardware.
5. The system is capable of running "one polymer one array" for both the sequencing and genotyping application, enabling the user to seamlessly switch between sequencing and fragment analysis runs, even in the same plate.
6. Having Radio-Frequency identification technology to tracks key consumables data.
7. The system is capable of running 6-dye chemistry for genotyping applications and uses the sixth generation Big Dye Terminator version 1.1 & 3.1 chemistry for the sequencing applications.

All the features mentioned above are incorporated in ABI Prism 3500 Genetic Analyzer. No DNA Sequencer other than ABI 3500 offers all the unique features mentioned above in single system.

Yours faithfully

For Invitrogen Bioservices India Pvt Ltd

Authorized Signatory

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Invitrogen BioServices India Pvt. Ltd.
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