All-India Institute of Medical Sciences

Ansari Nagar, New Delhi-29 (RESEARCH SECTION)

Ref. No. 09/Prop/CCRF/AIIMS/2018-19/St.

Dated: 20/12/2018

Subject: Purchase of Ultra High Throughput Next Generation Sequencer(NGS) for

the Deptt. of CCRF, AIIMS, New Delhi-29 on proprietary basis-

Inviting comments thereon.

The request has been received from Assoc. Dean (RS), Member Secretary, Deptt. of

CCRF, AIIMS to purchase the subject item from M/s.Premas Life Science Pvt. Ltd (Mfg. M/s.

Illumina Singapore Pte.Ltd. on proprietary basis. The proposal submitted by M/s.Premas Life

Science Pvt. Ltd and Departmental PAC certifications 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. 09/Prop/CCRF/AIIMS/2018-19/St. The comments

should be received by office of Stores Officer (RS), Research Section at AIIMS on or before

05/01/2019 upto 12:00 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 (RS)

Encl: Related documents enclosed.

1. PAC Certificate enclosed.

2. Performa Invoice



ALL INDIA INSTITUTE OF MEDICAL SCIENCES ANSARI NAGAR, NEW DELHI-110029 RESEARCH SECTION

PROPRIETORY/ SPECIFIC BRAND GOODS CERTIFICATE

1	Item/Type/Model No. required alongwith specification	NovaSeq 6000 Sequencing System
2	Is the item a spare parts attachment or accessory for an existing equipment	No (again)
3	Name of the manufacturers/ supplier of the item proposed by the Indentor	M/s Illumina Singapore Pte. Ltd. (OEM) M/s Premas Life Sciences Pvt Ltd. (Vendor)
4	Are they sole manufacturers/ sole distributors of the item	Yes
5	Is there any other item with similar/ equivalent specification available in the market to meet the job requirement envisaged. If the answer is yes, why the same cant be procured. Demanding officer should bring out comparative functional advantaged/ cost effectiveness of the recommended item from these offered by other	None
6	What were the efforts made to locate alternative source of supply or use other substitutes	Internet search, discussions with scientists & experts in different institutes & laboratories in academia & corporate & vendors
7	Why open/ limited tender cant be resorted to, for locating alternative source	a t to the state
8	Are the proprietory items certifying that the rates are reasonable or not	
9	Any other justification for procuring item from single source	None

Signature of Indentor (Demanding Officer)

(Head of the Department)

I certify 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 requirements and limited tender system could be dispensed with as they would serve no useful purpose to the next index. in this particular case

(Strike out whichever is not applicable)

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- 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 instrument should able to address multiple applications like sequencing of large whole genomes, transcriptomes, targeted resequencing, shotgun metagenomics, small RNA seq.
- methylation analysis.ChIPseq etc.

 3. The sequencing chemistry should allow for highly accurate sequencing through homopolymeric regions.
- 4. The sequencing workflow should allow fully automated operation paired-end chemistry without user intervention and support read lengths upto 300 bp and data output ranging from 100 Gbpto 6060 Gbpor 20 billion reads in single run.
- The system must have scalable throughput to support variable numbers of whole human genomes, exomes or transcriptomes per run.
- Clonal amplification of DNA template should be fully automated and integrated part of the system.
- System should offer flexible read length to support different applications: 2x50 bp. 2x100 bp. 2x150 bp.
- The instrument should generate accurate base calls and error free data with greater than 75% or more data over Q30 for 2x150 bp.
- 9. System should be supplied with a powerful computing system and complete latest software system to efficiently acquire, store and analyze data & should come with an intuitive graphical user interface. System should have at least dual 12 cores 2.6 GHz or more CPUs, 256 GB RAM & at least 900TB of usable storage. All available software for running, acquisition and analysis for all the applications should be quoted. The company should also provide the regular upgrades & updates of the software and related operating system and hardware free of cost for at least 5 years.
- 10. The system should come with an option of cloud based server for data storage, sharing and analysis. In addition, there should be an option of deployment of an onsite server, for the same function.
- 11. System should be provided with Field Programmable Gate Arrays (FPGA) based high throughput NGS Data Analysis Server with necessary software and license capable of analysing biological data with highly optimized algorithms for different NGS secondary

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- a. Server should have ability to analyse whole human genome at 30X coverage in less than 1 hour and whole exome in less than half an hour.
- b. It should have FPGA installed for fast analysis of data and should have G3 data storage. c. Server should meet with specifications given below
- · 2Unit Rack
- Processor Dual Intel Xeon E5-2690 v4 2.6GHz or higher
- Memory 256GB
- Scratch Drive 2.0TB Intel NVME P3700
- OS Drives 2x120GB SSD in Raid 1
- Networking Intel X710 DP 10Gb DA/SFP+, +1350 DP 1Gb Ethernet
- Power Supply Dual, Hot-plug, Redundant Power Supply (1+1), 750W
- FPGA Card Inbuilt
- Remote Access iDRAC8 Enterprise, integrated Dell Remote Access Controller, Enterprise
- Operating System CentOS 6.9
- Integrated NGS data analysis work packages for converting NGS to VCF and other Integrated NGs data analysis work packages for converting NGS to VCF and other required processed file formats for application of Exome sequencing, Genome Sequencing, RNAsequencing, CNV analysis, Methylation and other popular NGS tools
- To accommodate any upgrade available in the server or softwares/NGS pipelines in the future without additional cost.
- Successful demonstration and training of all the NGS analysis workflows must be
- 12. Start-up kits must be provided for complete Installation and Commissioning of the system to demonstrate all its capabilities.
- 13. System should be provided with consumables for sequencing atleast 96 exomes (in a single run) and 96 RNASeq (in a single run) complete with library preparation and bar coding, in addition to the start-up kit.
- 14. The system should accomplish complete sequencing workflow together with quality control checks at all stages (including but not limited to Fluorometer, fragment analyzer or better, compatible microplate heater/shaker and magnetic stands etc.). The company has to provide all the necessary accessories required for the complete workflow with their respective system.
- 15. List of all the sequencing kits and reagents compatible with the quoted system to be provided along with itemized pricing in the tender. The list should clearly mention the Catalogue No., Name and description of product and the sequencing data output for each of the quoted

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kit. The prices for consumables shall be frozen for next 5 years. In case of decrease in the price, the vendor shall pass on the benefit to the institute.

16. Vendor should submit an undertaking from manufacture the responsibility of maintenance in

- case of merger or acquisition.
- cise or merger of acquisitions.

 17. Vendor must have at feast one successful installation of the quoted model in government sector in India and a performance certificate from all the users for the same model within India, should be provided.
- Any Other accessory required for the effective and proper functioning of the machine should be supplied with the machine.
- be supplied with the machine.

 1) All the hardware and mandatory furnishing of equipment room for smooth functioning of the equipment to be provided by the vendor. All pre-installation requirements to be ensured by the vendor in consultation with the Engineering Services of AlMSS, New Delhi. The vendors are encouraged to with the size of installation in advance.

 20. The vendor should have strong technical support capability to provide training and
- continuous technical support for the equipment. For this purpose, the vendor should have a minimum of one successful installation for the quoted model in government sector in India with satisfactory performance certificate from the user.
- 21. Five year comprehensive warranty including all spares followed by CAMC (including all
- 21. Five year comprehensive warranty including all spares followed by CAMC (including all spares and labour for next five years. The price of CAMC from the 1s (bit) year will be added to cost of the coajement for calculating L1.

 22. Penalty clause: Direct presence in India with strong after-sales technical and service support and must ensure than all faults are rectified within 72-hours, otherwise a penalty will be applicable (i) 0025% of the equipment cost per day for the first week, and it will be doubtle in the second week, i.e. 005% per day; thus doobling overweek (ii) at maximum of 10% is reached. For the downtime exceeding the period of maximum penalty, the warranty will be increased at a rate equalling the doubtle of the downtime in addition to the financial penalty. Director, AIMS, New Delit reserves the right to take administrative earlies under a root of the Vendon/Manufacturer from list, debarring blacklisting of the firm etc.

Justification for Proprietary Article: Ultra High Throughput Next Generation Sequencer (NGS)

An ultra high throughput system with scalable nucleotide sequencing throughput ranging from 100 Gbp to 6000 Gbp in a single run is required to match the variable needs of multiple departments and investigators at AIIMS. A single system should offer flexible read length to support different clinical genomic research applications at low cost per base high quality sequencing in different paired end sequencing formats(2x50 bpupto $2x150\ bp). Among available sequencing platforms, the platform that does sequencing by$ using reversible terminator nucleotides (or sequencing by synthesis) chemistry is required for its wider applicability.

Since CCRF is a central facility of the institute, a system with capability to effectively perform wide range of sequencing functions such as whole genome especially human genome, whole exome, transcriptomes, targeted resequencing, microbial genome, shotgun metagenomics, small RNA seq, methylation analysis, ChlPseq etc. is required to match the needs of different departments of the institute. The sequencing technology must be robust, well evaluated especially for sequencing of human genome and providing accurate research diagnostic applications.

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October 09,2018

Proprietary Letter

To

The Director
All India institute of Medical Sciences
Ansari Nagar,
New Delhi-110029
India

Dear Sir,

Ref. Your Tender No. 02/Stores/CCRF/2016-17/FSC (Adv.) and File No. 26/CCRF/AIIMS/16-17/RS ("TE. document").

We, Illumina Singapore Pte. Ltd., a subsidiary of Illumina, Inc., a Delaware corporation, having its principal place of business at 11 Biopolis Way # 09-05 Helios, Singapore 138667, who is established and reputable manufactures of Illumina Sequencing & Arrays Systems and the consumables for the Sequencing and Arrays Systems Hereby, authorize Messers Premas Life Sciences Pt. Ltd., Plot No. 153, Okhla Industrial Area, Phase — III, New Delhi - 110020, India to submit quotes, negotiate jas and if necessary) and conclude the contract on our behalf for the goods manufactured by us.

We further confirm that the following product is solely manufactured by Illumina, Inc., U.S.A. and is Proprietary technology of Illumina, Inc., U.S.A.

Catalog #	Product Description
20012850	NovaSeq 6000 Sequencing System The NovaSeq 6000 Sequencing System is an integrated ultrahigh throughput system performing, onboard cluster generation and sequencing. This system includes installation and training and 12 months warranty (including parts and labor).
5Y-410-1003	MiSag-System MiSagrand system for automated generation of DNA closal distant by bridge amplification, sequencing, primary and secondary analysis. System includes embedded substances and sequences of the sequences of the sequences of the sequences of the Software Solite, installation lists and standards, installation and training, and 12 months warranty (including parts and laboration).

Yours faithfully,

Mr6/20)

Name: Tan Kah Ling, Mavis Title: Senior Director, Finance, Asia Pacific For and behalf of: Illumina Singapore Pte. Ltd.

Stumina Singapore * 11 Stooks Way * 800-05 Telesa * Argapoin 138867 * Tai +65-077-2-788 * East +65-077-2-788 * Ware Stuming Com-

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October 09,2018

Proprietary Letter

To

The Director
All India Institute of Medical Sciences
Ansari Nagar,
New Delhi-110029
India

Dear Sir.

Ref. Your Tender No. 02/Stores/CCRF/2016-17/FSC (Adv.) and File No. 26/CCRF/AIMS/16-17/RS ["Tildocument").

We, Illumina Singpoore Pts. Ltd., a subsidiary of illumina, Inc., a Deliveare corporation, having its principal piles of business at 11 Biogolis Way # 09-05 Helios, Singpoore 138667, who is established and reputable manufacturen of litemina Sequencing & Array Systems and the consumables for seconding and Array Systems and the consumables for Systems Hereiby, authorize Messers Premas Life Sciences Pt. Ltd., Pet No. 153, Collab Industrial Array Systems and Systems Series and Systems Se

We further confirm that the following goods are solely manufactured by or on behalf of Edico Genome Corp. and is proprietary behaviour of Friton Genome Corp.

Catalog #	Product Description
20027360	DRAGEN™ Bio-IT Platform
	DRAGEN server (with an FPGA chip to accelerate NGS secondary analysis)

Yours faithfully

Name: Tan Kah Ling, Mavis Title: Senior Director, Finance, Asia Pacific For and behalf of: Illumina Singapore Pte. Ltd

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October 18, 2018

MANUFACTURER'S AUTHORISATION FORM

The 'Director'
All India Institute of Medical Sciences ("AIIMS") Ansari Nagar, New Delhi-110029 India

Dear Sirs.

Ref. Your Tender No. 02/Stores/CCRF/2016-17/FSC (Adv.) and File No. 26/CCRF/AIIMS/16-17/RS ("TE

We, Illumina Singapore Pte. Ltd., a subsidiary of Illumina, Inc., a Delaware corporation having factory at 25861 Industrial Blvd., Hayward, California, United States of America, who is proven and reputable manufacturer of NovaSeq 6000 Sequencing System and MiSeq* System hereby authorize Messrs. Premas Life Sciences Pvt. Ltd., Plot No. 153, Okhla Industrial Area, Phase - III, New Delhi - 110020, India to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE document for the above goods manufactured by us.

Further, Illumina Singapore Pte. Ltd., a subsidiary of Illumina, Inc., a Delaware corporation, who also owns Edico Genome, Corp., the leading DRAGEN™ Bio-IT Platform provider of data analysis acceleration solutions for next-generation sequencing (NGS) having office at 12400 High Bluff Dr., Suite 650, San Diego, CA 92130, United States of America, hereby authorizes Messrs. Premas Life Sciences Pvt. Ltd., Plot No. 153, Okhla Industrial Iarea, Phase – Ill, New Delhi – 110020, India to submit a tender, process the same further and enter into a contract with you against your requirement solely as contained in the above referred TE document for the above goods manufactured by or on behalf of Edico Genome, Corp..

We are not participating directly in this tender for the following reason(s):

- s participating unecup in this center for the forming seasons).
 Illumina has appointed Messrs. Premas Life Sciences Put. Ltd., Plot No. 153, Okhla Industrial
 Area, Phase III, New Delhi 110020, India as our channel partner (authorization letter attached).
- The tender requires supply of third party items, which Illumina cannot supply directly.

We further confirm that no supplier or firm or individual other than Messrs. Premas Life Sciences Pvt. Ltd., Plot No. 153, Okhla Industrial Area, Phase – III, New Delhi – 110020, India is authorized to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE document for the above goods manufactured by us and/or on behalf of Fdico Sengue Form. of Edico Genome, Corp.,

Illumina Singapore * 11 Biopois Viby * 409-05 Helos * Singapore 138687 * Tel +65-6773-0188 * Fax +65-6774-0388 * www.illumina.com



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QUOTATION FOR SUPPLY OF GENETIC ANALYSIS PRODUCTS

Prepared by:

Premas Life Sciences Pvt. Ltd.

Plot No 153, Okhla Industrial Area,
Phase – III, New Delhi - 110020, India

Hereinafter referred to as "Premas"

Prepared for:
Director, All India Institute Of Medical Sciences (AIIMS)
Hereinafter referred to as "All India Institute Of Medical Sciences (AIIMS)" or "Customer"

Quotation Number: 20181109AD400_AIIMS_Bundled Quotation Date: November 9, 2018 Expiration Date: December 31, 2018 Nitya Nand Sharma Prepared By: Phone Number: +91 9418189407 Email: cs@premaslifesciences.com

FOR SMOOTH PROCESSING OF YOUR ORDER, ILLUMINA ASKS THAT YOU PLEASE REFERENCE THE ABOVE QUOTATION NUMBER ON ANY PURCHASE ORDER SUBMITTED AGAINST THIS QUOTATION.

Pub No. 062410



I. CUSTOMER INFORMATION

Company or Institution Name: Address: Contact Name: Phone: Email:

All India Institute of Medical Sciences (AIIMS) Ansari Nagar, New Delhi 110029, India Director

II. PRODUCT & PRICING INFORMATION

Catalog #	Product Description	Unit Price (USD)	Customer Price	Units	Subtotal (USD)
SY-NovaSeq 6000	NevaSeq 6000 Sequencing System Bundle Contains One (1) 20012550 NovaSeq 6000 Sequencing Systems, Four (4) 07002965 NovaSeq 6000 Bronnes Support Plan and Four (4) of 2004465 NovaSeq 6000 Reagent Replacement Add On 20012850 NovaSeq 6000 Sequencing Systems The NovaSeq 6000 Sequencing Systems is an integrated uttrahlar binoughput switters with the System of the System of Systems of the System The NovaSeq 6000 Sequencing Systems is an integrated uttrahlar binoughput switters integrated uttrahlar binoughput switters integrated uttrahlar discharge greatership and installation and training and 12 months warranty (including parts and labor). 20019965 NovaSeq 6000 Bronze Support Plant: Includes full coverage for parts, labor, and travel. Aemola Technical Support and travel. Aemola Technical Support on-site response target; control SW and HW updates; on-site applications support; discounts on advanced training; remote monitoring available. Raagent replacement not included. This plan offers affordable protection against costily repairs and is best suited for budget seestilve customers. 20024465 NovaSeq 6000 Reagent Replacement Add On	1,913,800,00	1,588,080.00	.1	1,538,990.00

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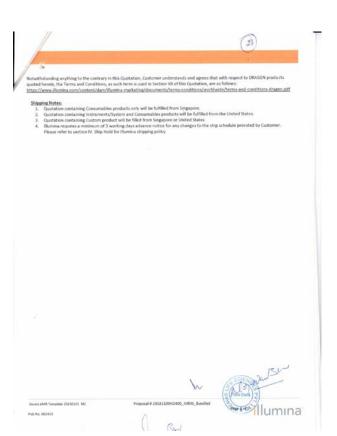
10027360_9030_7361	DRAGEN™ Bio-IT Platform Bundled	154,500.00	123,975.00	1	123,975.00		
	Contains One (1) 20027360 DRAGEN™ Bio- IT Platform, Four (4) of 20029030 Illumina DRAGEN Server Support Plan and Five (5) of 20027361 DRAGEN CS Lvl 1 1 year License						
	20027360 DRAGEN™ Bio-IT Platform: DRAGEN server (with an FPGA chip to accelerate NGS secondary analysis)						
	20029030 Illumina DRAGEN Server Support Plan: Includes full coverage on all service parts and labor. Includes comprehensive 5/24 email support and 5/18 telephone support; 5 business day average on-site response.						
	time, critical and non-critical updates, applications support, access to on-line training modules, and discounts on optional advanced training programs.						
	20027361 DRAGEN CS Lvl 1 1 year License : Throughput of 100,000 Gb						
5C-60-504	SciGene TruTemp Heating System (220V)	2,707.60	2,301.46	2.	4,602.92		
BD-60-601	Infinium MIDI Heatblock Insert	224.00	190.40	2	380.80		
20021663	NovaSeq Xp Flow Cell Dock	2,800.00	2,380.00	1.	2,380.00		
	Subtotal						
	Cost of Insurance and Airfreight						
	CIP New Delhi International Airport						

Please note sales tax and duties are not included in the price listed above. Any applicable sales tax will be included on invoices from filumina based on the tax laws and regulations in affect for the jurisdiction where the products will be shipped on the date the invoices are generated.

Payment term in this quote is valid if: (i) outdoner has a credit term with illumina; and (ii) the purchase order price does not exceed the credit limit available at the time illumina receives the purchase order. In the event the purchase order price exceeds the credit is not available at the time illumina receives the purchase order. bent flumina valided with diregale prepayment from customer.

Incoterms: CIP New Delhi International Airport

Pub No. 062450





III. CONDITIONS OF SALE

FILL CONDITIONS OF SALE

By submitting an order, Customer accepts and agrees that the Terms and Conditions is the sole and exclusive agreement between Customer and Illumina with respect to the Illumina products and/or services as described above and accepts all other terms of this quotation. NOTWITHSTANDING THE FOREGONG, IF ILLUMINA AND CUSTOMER HAVE ENTERED INTO A VALID AND INFORCEABLE AGREEMENT GOVERNING THE ILLUMINA PRODUCTS AND/OR SERVICES DESCRIBED ABOVE, THE ORDER OF PRECEDENCE BETWEEN THE AGREEMENT AND THE TERMS AND CONDITIONS, SHALL BE AS FOLLOWS: IN THE EVENT OF A CONFLICT BETWEEN THE TERMS OF THE AGREEMENT INCLUDES ADDITIONAL TERMS NOT ADDRESSED IN THE TERMS AND CONDITIONS, OR IT THE AGREEMENT INCLUDES ADDITIONAL TERMS NOT ADDRESSED IN THE TERMS AND CONDITIONS, THE AGREEMENT SHALL GOVERN WITH RESPECT TO SUCH TERMS. Illumina does not supply plastics such as microplates or pipted tips for use in the Isted assays and these are not included in the consumables pricing provides pricing prov

- result of the highly muniquesco mount of the products referenced in this Quotation is not conditioned on future performance characteristics or

 Customer's purchase of the products referenced in this Quotation is not conditioned on future performance characteristics or
- Unless otherwise agreed by Illumina in writing, Illumina will not assist Customer in developing, testing, or validating unsupported applications.
- applications.

 Illumina will not replace any consumables or reagent kits if the cause of any performance failure is due to unsupported applications,
 Illumina is unable to provide any assurances or guarantee that the performance of the products referenced in this Quotation will
 match published specifications when used for unsupported applications.

IV. SHIP HOLD

In cases where this Quotation does not include a pre-defined ship schedule, the following ship hold terms shall apply:

- cases where this Quotation does not include a pre-defined ship schedule, the following ship hold terms shall apply:

 All orders must have a defined ship schedule. The initial ship date must be no later than three (3) months from the date the purchase order is received by Illumina's receipt of the purchase order.

 Any exceptions to these ship hold terms must be agreed to in writing by Illumina and the Customer must pre-pay at least fifty percent (50%) of the purchase order amount of the affected shipments.

 Customers may request two (2) shipment delays for any single purchase order. The total months of delayed shipment for shipments associated with a single purchase order shall not exceed six (6) months.

 If Customer has requested a delayed shipment, Illumina reserves the right to change the lead time necessary to initiate Customer's first shipment (which may be longer than the lead time quoted at the time of the order placement).

 If Customer cannot take shipment in accordance with these terms, Illumina reserves the right to cancel the order in its entirety without any liability to the Customer.

- without any liability to the Customer

V. HOW TO ORDER

Please submit your Purchase Order and a complete copy of this quotation to the attention of:

Illumina Customer Service

riomina customer service customerservice@illumina.com
Fax:
+61.3.9212.9901 (ANZ)
+65.6744.0388 (All others) +81 3 4578 2810 (Japan) +86.21.6090.6279 (China – Shanghai) +86.10.8455.4855 (China - Beijing)

Customer Service

Having trouble submitting orders online or questions with an order? Please contact us.

Phone: +61.3.9212.9900 (ANZ)

+81.3 4578 2800 (Japan) +86.21.6032,1066 (China – Shanghai) +86.10.8455.4866 (China – Beijing) +65.6733.0188 (All others)

Goods AMR Template 20150101 MC

Proposal # 20181109AD400 AIIMS Bundled

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Order Confirmation
You will receive an e-mail confirmation containing your order number within 1 business day. Another email will be sent to notify you when your order has been shipped.

VI. EXPIRATION OF OFFER

The offer contained in this document is revocable at the sole discretion of Illumina if not executed by Customer and a purchase order received by Illumina before 5:00 pm Pacific Time on the expiration date shown on page 1 of this quotation.

6- 104 Year CMC proposal already Submitted with INR Dusde.

When the contained in this document is revocable at the sole discretion of Illumina if not executed by Customer and a purchase order received by Illumina before 5:00 pm Pacific Time on the expiration date shown on page 1 of this quotation.

6- 104 Year CMC proposal already Submitted with INR Dusde.

When the containing your order number within 1 business day, Another email will be sent to notify you when you will be sent to notify you will be sent to not no

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Pub No. 063410

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Premas Life Sciences Pvt. Ltd. Plot no 153, Okhla Industrial Area Phase-3, New Delhi - 110020 CIN: U51909DL2011PTC217592 GSTIN: 07AAGCP0079F1ZI

The Director, All India Institute of Medical Sciences Ansari Nagar, New Delhi New Delhi-110029

SQPLS/ILM/18-19/0092 Date: October 17, 2018 Validity: 120 days

PRODUCT & PRICING INFORMATION - FOR ILLUMINA

Sr No	Catalog #	Product Description	Unit Price (INR)	Discount	Discounted Customer	Qty	Subtotal (INR)
1	37-MovaSeq 6000	Nevestee (000 Sequencing system bundle Contains One (1) 2001289 Noveses (000 Sequencing System and Fore (4) of 20019988 Nevestee (000 Silver Support Plan 2001289 Nevestee (000 Sequencing System is an integrated ultrahigh throughput system performing onboos Gequencing System is an integrated ultrahigh throughput system performing onboos Gequencing System is an integrated ultrahigh throughput system performing onboos Gequencing System is and labor). 20019888 Noveled (600 Silver Support Plan includes full coverage for parts, labor, and travely cone PM, remote Technical Support 5 182; > business dey on the response target; control Narridware/fortware updates; onsite applications support, and discounts on advanced trahing. The most popular full-service plan, oblancing performance, procurities, and control performance, procurities, and control perfo	₹15,05,91,000.0	0 15%	₹ 12,80,02,390.00	1	* 12,80,02,390.00
2	SC-60-504	SciGene TruTemp Heating System (220V)	₹ 2,03,070.00	15%	₹ 1,72,609.50	2	₹ 3,45,219.00
3	BD-60-601	Infinium MIDI Heatblock Insert	₹ 16,800.00	15%	₹ 14,280.00	2	₹ 28,560.00
4	20027360	DRAGEN Bio-IT Platform, 5 year warranty and DRAGEN CS Lvl 1 1 year License (20027361) - 5 nos.	₹ 1,20,33,000.00	15%	₹ 1,02,28,050.00	1	₹ 1,02,28,050.00
5	20021663	NovaSeq Xp Flow Cell Dock	₹ 2,10,000.00	15%	₹ 1,78,500.00	1	₹ 1,78,500.00
					Net Ex-Work	cs Price	₹ 13,87,82,679.00
					Total	Value	₹ 13,87,82,679.00

5.No	Description	Subtotal (INR)
1	NovaSeq 6000 CMC - 6th Year	t 1,01,07,000.00
2	NovaSeq 6000 CMC - 7th Year	₹ 1,06,12,350.00
3	NovaSeq 6000 CMC - 8th Year	f 1.11,42,967.50
4	NovaSeq 6000 CMC - 9th Year	₹ 1,17,00,115.88
5	NovaSeq 6000 CMC - 10th Year	t 1,22,85,121.67
	Note: GST will be applicable as per GOI norms at the t	ime of invoicing









Premas Life Sciences Pvt. Ltd. Plot no 153, Okhla Industrial Area Phase-3, New Delhi - 110020 CIN: U51909DL2011PTC217592 GSTIN: 07AAGCP0079F1ZI

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Optional: Illumina BaseSpace Sequencing Hub services							
Cat no.	Unit Price (INR)						
SW-410-1002	BaseSpace Live Storage (176) - Peryear	*	50,400.0				
5W-411-1001	BaseSpace Live Storage (10TB) - per year	*	5,04,000.0				
SW-411-1002	BaseSpace Live Storage (5078) - Per year	*	25,20,000.0				
20020628	BaseSpace Sequencing hub unlimited storage and compute for NovaSeq 6000 - per year	۲	1,96,00,000.0				

Note for Illumina BaseSpace services:

1. User have to purchase BaseSpace services:

2. Out analysis will be charged extra as per livel's requirement each year.

2. Out analysis will be charged extra as per livel's usage to AIMS. 3 Lived is equivalent to 1.050 and lived trusge requirement for various analysis is attaceted separately. The invoice will be raised directly by Illumina on monthly basis (taxes 3. 10 Gight) internet connectivity is required to upload and down load the data on/from BaseSpace

4. 657 would be extra as per GOI guidalines at the time of invoicing

Terms & Conditions for High Seas Sale

- Terms & Conditions for Jish Jesus Sale

 The above mentioned goods are imported and the prices declare is FOR AllMS, Defini.
 Premas will pregare the custom dearance at New Dehi Airport, transportation from New Dehi Airport to AllMS.
 Premas will pregare the High Seas Sale Agreement and share with AllMS. AllMS has to sign High Seas Sale
 Agreement and return copy of agreement to Prema.
 Prems will take care for Custom Duty, Custom Clearance charges, DO charges, transportation, Dry (or residing and any
 other trassion or sepanses involved for custom cinerance activities.

 4 GSI @12% on consumables will not be applicable in High Seas Sale agreement. In absence of High Seas Sale agreement, this will
 be charged eart form AllMS.

 5 Country of Origin and Submerct LSA/ Singapore

 6 Delivery within 6 10 weeks from date of receiving of valid purchase order.

 7 Wymant-TSA on delivery and 25% on acceptance against Timil Acceptance Certificate' as per Section XVIII Net 30 days through
 wite transfer in bevour of Prems all to Solonce Str. Lid, Bashing detain are attached.

 9 Unchase Order should be issued in ferour of My Premse Life Solonce Str. Lid, Plot No. 153, Okhla industrial Arna, Phase-III, New Dehi-110020

 9 The above quotode products are for Research Use on the Solonce Str. Lid, Plot No. 153, Okhla industrial Arna, Phase-III, New Dehi-110020

 10 The above quotode products are for Research Use on the Solonce Str. Lid, Plot No. 153, Okhla industrial Arna, Phase-III, New Dehi-110020

 11 Test Serva candode products are for Research Use on the Solonce Str. Lid, Plot No. 153, Okhla industrial Arna, Phase-III, New Dehi-110020

 12 Please send stan copy of the Purchase order at califorence.

For Premas Life Sciences Pvt. Ltd.

I seemant





Premas Life Sciences Pvt. Ltd. Okhla Industrial Area, Phase-III, New Delhi, 110020, India

CIN: U51909DL2011PTC217592 GSTIN No.:07AAGCP0079F1ZI

Prepared for:

All India Institute of Medical Sciences Ansari Nagar, New Delhi, DL,110029, INDIA Hereinafter referred to as "AIIMS"

Quotation Number: SQPLS/ILM/18-19/0094 Quotation Date: October 17, 2018 Quote Validity: 120 days Prepared By: Kanika Verma 9971898342 Phone Number: cs@premaslifesciences.com

II. PRODUCT & PRICING INFORMATION

Catelog #	Product Description	Unit Price (INR)	Disc. Customer Price	Qty.	Transaction value (INR)	HSN/SAC Code	GST N	GST Amount
1057-11-0	PCR plate Insert for Heating System	4 72,000.00	₹ 64,800.00	2	₹129,600.00	1294	5.00	₹ 6,480.00
14216-214	VWR* Advanced High-Speed Microplate Shakers, 230V	₹ 960,000.00	₹ 864,000.00	1	₹864,000.00	1234	5,00	₹43,200.00
AM10027	Magnetic Stand	₹ 84,000.00	£75,600.00	1	₹75,600.00	1234	5.00	₹3,780.00
5382000015	Thermomix with accessories	₹ 600,000.00	₹540,000.00	1	₹540,000,00	1234	5.00	₹27,000.00
PLS SERVER	Server - Dual 12 Core 2.6 GHz, 256 GB RAM, with 500 TB usable storage	₹ 10,200,000.00	₹9,180,000.00	1	₹9,180,000.00	1234	5.00	₹459,000.00
						Net Value		10,789,200.00
					a	ST Amount		₹539,460.00
						Total		11,328,660.00

Terms & Conditions:

- A Content which is a lease a most of purchase order.

 J. Perment/T.W. in delivery and 250 in organization properties of the content of the process of the purchase of the purc

- 8. Above products are for research use only.

- 10. Please share PC on sulpremaillescience.com.

 11. Above quoted price are as per the current exchange rate, in case the exchange rate will increase beyond 5N, the same will be charges extra.

 12. If outsiner has 05H certificate the 105T will be applicable @9% as per notification 45/2017 date

 14.11.17 Outsiner has to arevide the 05H along with confirmed PO

 For Premax IAI, Stoppers Px. 154

 For Premax IAI, Stoppers Px. 154

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May 15, 2018

CERTIFICATE OF AUTHORIZATION

This is to certify that Premas Life Sciences Pct. Ltd. ("Channel Partner"), having a principal place of business at 153, 2nd Floor, Okhla Pisses 3, New Delhi +110020, India, is the selected, authorized and exclusive Channel Partner of Illimania branded products of Illimanias, Fos. San Diego, CA, USA and Illimanias Channel Partner is responsible for product promotion, training, after sales service, distribution, offering, negosition and entering into contracts for Illimanias branded products within the territory of India. Please note that this certificate does not amberice Channel Partner to late any action that would result in the cancellation, revocation, smallment or reaction for other similar action) of my existing or future product registration within the territory unless support by a nonkiredigualised letter on Illimanias Testerhead authorizing such action that is signed by a sensor vice president (or higher officer) of Illimanias Testerhead authorizing such action that is signed by a sensor vice president (or higher officer) of Illimania.

This certification is valid until May 15, 2019.

Sincerely,

Kristina Saewert

Contracts and Pricing Manager, Global Channel Partners

Office: 858.754.3024



018	Illumina Patents
Illumina® MiSegDx™ Cyello Fibrosis Assays	The fiated products and their use are the subject of US Patent Nos. 6,201,107,6,730,777; 6,984,487 and 6,902,907 Iconteed from The Reperts of the University of Michigan and the MSC Release's Development Limited Patricianship.
Nestera ^{tes} Sample Preparation Kita Totalistorist Sample Preparation Kita Nestera Enrichment and Exome Kita Trußight ^{the} Enrichment Kita Trußight Plapid Capiture Kita	The listed products and their use are the subject of US Patent Nos. 6,201,107, 6,730,177, 6,694.487 and 6,902,007 Scenard non The Rigoerts of the University of Michigan and the HSC Research Development Limited Partnership.
TruSeq™ Stranded mFNA Sample Prep Kita TruSeq Stranded total RNA Sample Prep Kita	Umited Use Label Ucersec Tries product and fits use are the subject of one or more issued another pending US and loneign parted applications sense by Mare Planch Gesellschaft, exclusively ficensed to Niew England Biolatis, Inc., and subformed to Niewis, Inc., the purchase of this product from Biomins, Inc., fix utiliates, or its authorized resolers and distributions conveys to the tayer for non-transmissible right to use the ourchased amount of the product and components of the product try the buyer fixed the buyer is an academic or to-profit entity). The procroses of this product does not convey a Richard under any datum in this temporary patients or palient adollations direct to produce or the components to a timp party or otherwise use the product for the Identification (IMPROCISES: (I) use of the product or its components in manufactoring; or 00 use of the product or its components in manufactoring; or 00 use of the product or its components in manufactoring; or 00 use of the product or its components in manufactoring; or 00 use of the product or its components or these party of the product or its components or the impediation prophysicalic purposes in humans or arimals.
MiniSeq Kits MSD*** 500 Output Kits HSG*** 300014000 Cluster Hits HSG*** 300014000 Cluster Hits HSG*** 300015000 Flangert Kits NovaSeq*** 500015000 Flangert Kits NextSeq*** 50001550 Output Kits NextSeq*** 50001550 Output Kits NextSeq*** 50001550 Output Kits NextSeq*** 50001550 Output Kits NextSeq*** Turpet*** Turpet*** Turpet*** Turpet*** HSG*** Reagant Kits HSG**** Reagant Kits **Turpet**** Turpet**** Turpet*** Turpet*** **Turpet*** Turpet*** Turpe	The listed products and their use are the subject of the following US Patent New, 7,375,234, 2,763,736, 8,129,542, 8,540,970, 8,877,339 and related patents and patent applications.
BeadChip Kits and Products Infinum™ Kits and Products FastTrack Microarray Services Whole Genome Methylation CSE Whole Genome Genotpiping Kits	The listed products and their use are the subject of the following US Patient Nos. 6,355,431; 6,429,027 and related patients and patient applications.

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October 22, 2018

Proprietary Letter

To Whom It May Concern

This is to state and confirm that Illumina Systems are unique, we are not aware of any equivalent instrument sold by another, and we vigorously protect our exclusive technology through a variety of means, including trade secret, patent, and other proprietary rights. By way of representative example only, patents and patent applications that address elements of the NovaSeq 6000 and to which Illumina has exclusive rights, are:

System	Patents	Feature
NovaSeq 6000 Sequencing System (Catalog# 20012850)	US 7057026, US 7414116, US 7427673	The NovaSeq 6000 System delivers a groundbreaking combination of throughput, speed, and flexibility to complete next-generation sequencing [NGS] projects faster and more economically than ever before. A choice of four flow cell formats, multiple read length configurations, and the ability to run one or two flow cells simultaneously enable data output ranging from "80 Gb 6000 Gb per run, providing flexibility across a broad range of applications and study sizes. The NovaSeq 6000 System combines unmatched system output with rapid run times to deliver the highest daily throughput of any NGS system currently available. With preconfigured reagent cartridges, radio frequency identification (RFID)—encoded consumables, a choice between fully automated onboard cluster generation and an individual lane loading workflow, the NovaSeq 6000 System provides simple, streamlined production-scale sequencing of genomes, exomes, transcriptomes, and numerous other library types. The NovaSeq 6000 System use proven illumina sequencing by synthesis (585) chemistry with patented reversible terminator chemistry to generate consistent reliable data. In addition, the NovaSeq 6000 System integrates with BaseSpace" Sequence Hub, an easy, secure, and cost-effective way to store, analyze, and share genomic data.

Yours faithfully,

Name: Tan Kah Ling, Mavis

Title: Senior Director, Finance, Asia Pacific For and behalf of: Illumina Singapore Pte. Ltd.

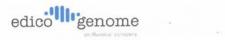
Illumina Singapore * 11 Biopolis Way * #09-05 Helios * Singapore 136667 * Tel +05.6773.0188 * Fax +05.6774.0388 * www.illiamina.com

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March 20

Join us at this informatics satellite meeting at ASHG to hear Illumina's approach to building software to



Edico Genome Expands Intellectual Five Patents Issued for DRAGEN

Company Holds Largest IP Portfolio Encompassing Processor-Based Analysis of Next-Generation Sequencing Data

SAN DIEGO, March 20, 2017 - Edico Genome, creator of the world's first processor designed to analyze next-generation sequencing data, today announced the United States Patent and Trademark Office has issued an additional five, foundational patents surrounding the DRAGEN™ platform for analysis and storage of genomic data. Edico's intellectual property portfolio now contains eight issued patents, which provide protection up to 2033. An additional sixteen patents are pending.

All issued patents broadly cover the technology core to DRAGEN, including execution of sequence analysis pipelines and storage for genomic data on the hardware processing platform and providing for both onsite and cloud deployment. The patents cover any type of processor, including application-specific integrated circuits (ASICs), graphical processing units (GPUs) and field-programmable gate arrays (FPGAs), which are utilized by Edico's highly reconfigurable DRAGEN processor. Entitled "Bioinformatics Systems, Apparatuses, And Methods Executed On An Integrated Circuit Processing Platform," the patent numbers are as follows: 9.576,104; 9.576,103; 9.529,967; 9.519,752; and 9,483,610. Numbers for previously announced U.S. patents are as follows: 9,342,652; 9,235,680 and 9.014,989.

"Our robust and growing intellectual property portfolio surrounding DRAGEN reflects the innovation of our company. DRAGEN is a cutting-edge, unique solution for the big data bottleneck that slows clinical and research applications of genomics," said Pieter van Rooyen, Ph.D., chief executive officer of Edico Genome. "Edico remains committed to delivering innovative, best-in-class infrastructure for researchers, companies and

> Just 0

We are excited to announce that Edica Genome is now an Illuminant company. If you are an existing folice-mone customer, please canalar to Illuminate Informatics on Electrometric Specialist. with any question More referencing on Illuminateuro Illuminateu

of next-generation sequencing data both onsite and in the cloud. Powered by FPGAcentric technology that features optimized algorithms for mapping, alignment, sorting. variant calling and more, DRAGEN enables a whole genome to be analyzed in only 20 minutes onsite, or even under 10 minutes in a single cloud instance, while maintaining high accuracy and significantly lowering costs. DRAGEN also features hyper-efficient lossless, real-time compression of data files, reducing genomic data footprint and longterm storage costs significantly.

Multiple end-to-end, clinical-grade pipelines are available from Edico, including genome/exome, cancer, transcriptome/RNA-seq, structural variant, copy number variant, epigenome/methyl-seq, metagenome/microbiome, joint genotyping and third-party pipelines such as GATK 3.6. The platform is flexible and allows for customization of algorithms and existing pipelines. This system is managed through the browser-based DRAGEN portal, which features an easy-to-use, "drag and drop" interface, or fully parameterizable command line scripting. Best-in-class solutions for onsite, cloud or hybrid cloud analysis have been created through partnerships with top technology companies. including Intel, IBM, Dell EMC, and Amazon Web Services.

To date Edico's customers have processed more than ten petabytes of data using DRAGEN for a range of activities, including processing of whole genomes, exomes or analyzing 3D genome structures.

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BLOWS https://www.illumina.com/company/legal/patents.html

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emas Life Sciences Pvt. Ltd.
sci no. 153, Outra Industrial Avea Phase III
fero Daini - 1100200
CIN: US1998CL001+PT217592
Email: contact@juvenadifesciences.com
Phone: 011-46170798

Oct 17, 2018

PRICE REASONABILITY CERTIFICATE

This is to certify that we have offered the maximum possible discount to you in our Quotation No. SQPLS/ILM/18-19/0092, SQPLS/COV/18-19/0034, and SQPLS/ILM/18-19/0094 dated 17.10.2018.

We would like to certify that the quoted price are the minimum and we have not quoted the similar offer as per the quoted configuration on lesser rates than those being offered to AIIMS, New Delhi to any other customer nor will do so till the validity of offer or execution of purchase order, whichever is later.



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