

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

Ref. No. 47/Stores(DO)/Biotech/PAC/2019-20/FSC-I Dated-04/02/2020

Sub:- Purchase of "XFe96 Metabolic Flux Analyzer – 01 No." for the Department of **Biotechnology** at AIIMS, New Delhi-110029, on proprietary basis Inviting comments thereon.

The Institute is in the process to purchase "XFe96 Metabolic Flux Analyzer – 01 No. at AIIMS, New Delhi from M/s. Agilent Technologies, Singapore through M/s. Labmate (Asia) Pvt. Ltd. The PAC Certifications by M/s. Agilent Technologies, Singapore through 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 15 day from the date of issue/uploading of the notification giving reference No. 47/Stores(DO)/Biotech/PAC/2019-20/FSC. The comments should be received in office of Stores Officer (FSC), Store Section (DO), Animal House Building, Near Biotechnology Building at AIIMS on or before 22/02/2020 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.

Yours faithfully,


SR. STORES OFFICER (DO)

Encl: Related documents enclosed.

(On proprietary basis)

1. A 96-well real time system which can be used to study eukaryotic cell Mitochondrial Stress, glycolytic stress, and metabolic Switching in adherent and suspension cells
2. The machine should be capable of real time and simultaneous measurement of oxygen consumption rate (OCR) and extracellular acidification rate (ECAR) in the same well to study glycolysis and mitochondrial respiration.
3. The system should have at least four drug ports to examine the effect of different compounds with automatic injection capability into the culture plate with a programmable mixing.
4. The equipment should have a temperature controller to maintain steady temperature at 37°C while performing the assay.
5. The system should be able to calibrate the sensors automatically.
6. The machine should be able to perform label free, non-invasive, real-time assays.
7. The machine should have the flexibility to analyze cell lines, primary cells, tissues and also isolated mitochondria.
8. The machine should provide real time data of basal respiration, ATP turnover, proton leak, maximal respiration, spare respiratory capacity, glycolysis, glycolytic capacity and glycolytic reserve capacity of the cells.
9. The specially designed experiment cartridge needs to be equipped with solid state sensors to detect oxygen consumption and media acidification.
10. The system should be highly sensitive to be able to analyze as few as 4,000 cells per well and to maximum of 500,000 cells per well.
11. The system needs to be supplied with suitable computer with preinstalled acquisition and analysis software preferably with touch options.
12. The system should also be provided with a Seahorse XF Imaging and Cell Counting Software for an improved work flow integration.
13. At least 5 licenses for the analysis software and 5 licenses of the XF Imaging and Cell Counting software should be provided that are compatible with the other external computer systems.
14. The software should allow analysis on Microsoft excel and or other statistical programs such as Graph Pad.
15. Free upgrades must be provided during the warranty period. Any hardware requirement for compatible software upgrade must be provided with.
16. The machine should be provided with a 3 KV online UPS with at least 1 hour backup, a high-precision pipette set (1- auto pipetter + 6 fully –autoclavable pipettes).
17. The system should be provided with a data storage and networking server with a RAM of 32 GB (8x4 RAM) and 9-10 TB storage (8x1.2 TB SFF) with Intel 4110 2.1 GHZ processor having at least 4 cores.
18. In addition to the starter kit provided by the original manufacture for training purposes, the machine should be provided with the following essential reagents:

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- a) Seahorse XF Base Medium (500 ml) –3 bottles
b) Seahorse XF Assay Medium (500 ml) – 3 bottles
c) Seahorse XFe96 FluxPak (18 assays) – 4 packs
d) Seahorse XF Cell Mito Stress Test Kit- 2 kits
e) Seahorse XF Cell Glycolysis Stress Test Kit- 2 kits
e) Seahorse XF Plasma Membrane Permeabilizer- 2 kits
f) Seahorse XFe96 Spheroid FluxPak – 2 kits
g) Seahorse XFe96 Spheroid Plate – 2 packs
h) Seahorse XF Palmitate-BSA FAO Reagent- 2 packs
i) Cell-tak -2 vials

(4)

17. Price of all the consumables associated with the machine and the kit should be quoted in the tender document.

18. There must be a provision of on-site training for every 6 months for the first 3 years of the purchase of the instrument.

19. Standard AIIMS conditions of warranty will apply.

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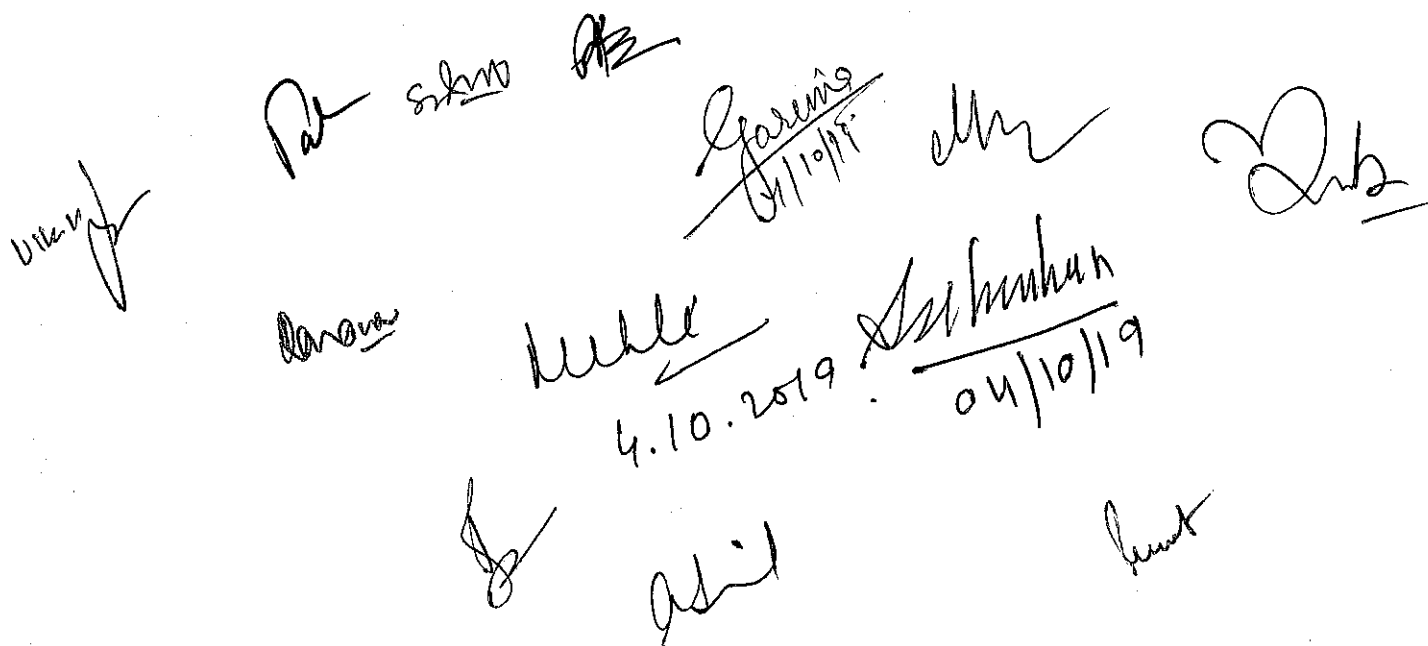
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Justification for procurement of an XFe96 Metabolic Flux Analyzer on proprietary basis
(1 no., ~ 2.25 cr)

The Department of Biotechnology requires a standalone metabolic Flux Analyzer that could evaluate the metabolism parameters namely basal mitochondrial respiration rate, ATP turnover, proton leak, maximal respiration, spare respiratory capacity, glycolysis, glycolytic capacity and glycolytic reserve capacity of the cells on a large scale (>90 samples simultaneously). All these measurements should be done non-invasively and in real-time. The machine should be compatible with both prokaryotic and eukaryotic systems to cater to a variety of applications required for teaching training and research by various investigators of the Department of Biotechnology including diagnostics and drug discovery applications. A compact system is required to fulfil the requirements in the limited space that is available. Essentially, a system to enable real time and simultaneous measurements of Mitochondrial/bacterial respiration such as respiration rate, glycolytic rate, spare respiratory capacity, cell energy phenotype is required.

To the best of our knowledge, XFe96 Metabolic Flux Analyser is the only standalone system that fulfils all our requirements in a single equipment.


 A collection of handwritten signatures and dates. At the top left is a signature. Below it is another signature. To the right of these are two more signatures. In the center, there is a signature with the date '04/10/19' written below it. To the right of this is another signature. Below the central signature is the date '4.10.2019' and another signature. To the right of the date is a signature with the date '04/10/19' written below it. At the bottom left is a signature. At the bottom center is a signature. At the bottom right is a signature.

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Agilent Technologies, Inc.
121 Hartwell Avenue
Lexington, MA 02421

781-861-7200 telephone
www.agilent.com



Agilent Technologies

January 9, 2019

Agilent Seahorse Products Sole Source and Distribution in India

To Whom It May Concern:

Agilent Seahorse XF Analyzers are the first and only commercially available instrument line for scientific research that measures both energy producing pathways simultaneously in living cells in microplates.

The first Seahorse XF Analyzer was installed at a customer site in June of 2006. In October 2007, the United States patent office issued Seahorse patent # 7276351 covering the novelty of the measurement for measuring multiple physiological properties of cells. Numerous additional patents have been granted further establishing this technology as unique. On November 1 2015, Agilent Technologies acquired Seahorse Bioscience. Now over 5000 world renowned scientists are utilizing Agilent Seahorse XF technology.

On the following page is a list of unique technical features not found in any other instruments qualifying the Agilent Seahorse XFe and XFp Analyzers for a sole source purchase.

Our Distributor in India, namely Labmate (Asia) Pvt Ltd as mentioned below and its branch offices, are authorized to quote and supply the Instrument on our behalf.

Labmate (Asia) Pvt Ltd.
183, Baid Mehta Complex
Mount Road, Chennai - 600015
INDIA

Sincerely,

1/9/2019

X Sarah E. Burroughs

Sarah E. Burroughs
Product Manager
Signed by: BURROUGHS

Sarah E. Burroughs, Ph.D.
Product Manager, Seahorse XF Instruments
sarah.burroughs@agilent.com

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Sole Source Letter – Agilent Seahorse XFe/XFp Extracellular Flux Analyzer

Dear Researcher,

Thank you for your interest in the Agilent Seahorse XFe and XFp (Extracellular Flux) Analyzers. Agilent Seahorse XF metabolic analyzers and stress test kits make cellular bioenergetic studies simple, efficient and user-friendly. Agilent Seahorse XF metabolic analyzers are the only commercially available instruments for scientific research that simultaneously measures the two major energy producing pathways of the cells—mitochondrial respiration and glycolysis—in living cells, in real time, in a microplate. Researchers are utilizing Agilent Seahorse XF technology for faster, better, and more accurate measurements of cellular metabolism.

With offices worldwide, Agilent Seahorse XF customers include scientists at academic institutions, pharmaceutical and biotech organizations. Agilent Seahorse XF technology users have published over 2500 peer-reviewed articles in top journal using the XF technology platform, demonstrating that Agilent Seahorse XF technology has set the standard in the rapidly growing field of cell metabolism.

The following page is a list of unique technical features not found in any other instruments qualifying either The Agilent Seahorse XFe or XFp Analyzer for a sole source purchase.

Sincerely,



David A. Ferrick, PhD
Senior Director of Marketing- Seahorse XF Products
david.ferrick@agilent.com

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Unique Features of Agilent Seahorse XF Technology

Agilent Seahorse XF Technology

- Simultaneously measures oxygen consumption rate (OCR) and extracellular acidification rate (ECAR) of living cells.
- Convenient, easy-to-use Seahorse XF test kits and Seahorse XF reagents simplify the study of cellular metabolism by providing pre-calibrated, pre-tested reagents for measuring metabolic phenotype, mitochondrial respiration, glycolysis, and fatty acid oxidation.
- Uses disposable cell culture microplates.
- Non-invasive measurement requires no addition of dyes, labels or reporters.
- Cells/microplate remain viable following an Agilent Seahorse XF assay and may be used for another assay.
- Measurements may be repeated to measure kinetic responses over several hours.
- Typically requires only 1×10^4 to 1×10^6 cells per 24-well; 5×10^3 to 5×10^5 per 96-well and Seahorse XFp assay.
- No cleaning is required. All parts that contact cells, media or compounds are disposable.
- Measures adherent cells without requiring trypsinization; suspension cells may be measured using Cell-Tak® cell and tissue attachment medium.
- Up to four test compounds may be added automatically to each well during the assay. Measurements may be performed before and after each compound is added.
- Measurement technology is covered by patent # 7,276,351.

Agilent Seahorse XFe Analyzer

- Compact bench-top instrument 41cm W x 61cm D x 43cm H.
- High resolution, 19" touch screen controller for high productivity.
- Temperature controlled measurement chamber is maintained at $37^\circ\text{C} \pm 0.5^\circ\text{C}$.
- Data display shows OCR and ECAR data simultaneously.
- Wave, an Agilent Seahorse-supplied software, provides integrated data analysis, and data is easily exported into MS® Excel for transfer into other statistical analysis programs.
- Wave is provided with an unlimited-use license for one institution.

Agilent Seahorse XFp Analyzer

- Compact bench-top instrument 43.0cm W x 30.3cm D x 56.8cm H.
- Designed for pairwise comparisons, patient-derived, or other precious samples.
- Temperature controlled measurement chamber is maintained at $37^\circ\text{C} \pm 0.5^\circ\text{C}$.
- Data display shows OCR and ECAR data simultaneously.
- Wave provides integrated data analysis, and data is easily exported into MS Excel for transfer into other statistical analysis programs.
- Wave is provided with an unlimited-use license for one institution.

Agilent Seahorse XF Assay Kits and Reagents

- Standardized reagents, kits, and protocols are designed for use with either the Agilent Seahorse XFe or XFp Analyzer.
- Convenient, quality-controlled kits provide standardized metabolic measurements in an easy-to-use format.

For Research Use Only. Not for diagnostic purposes.
www.agilent.com

Seahorse Bioscience
A part of Agilent Technologies

Agilent Seahorse XF Assay Cartridges and Microplates

- Only Agilent Seahorse XFe and XFp assay cartridges are compatible with Agilent Seahorse XFe and XFp instruments, respectively, and must be used during a Seahorse XF assay.
- Agilent Seahorse XFe Microplates and Agilent Seahorse XFp Miniplates are tissue culture treated for optimal cell growth.
- Each assay cartridge is auto-calibrated. Data are reported in calibrated rates of pmol/min or mpH/min.

Enclosure

- The precision-molded enclosures on the Agilent Seahorse XFe and XFp Analyzers have specialty coatings and gaskets to shield the electronics and samples from ambient light, as well as block radiated and emitted electromagnetic interference.

Excitation and Emission

- Optical sensors do not consume oxygen during the measurement and are not in contact with the cells.
- Optical sensors are not affected by compound or intracellular dye fluorescence.
- Oxygen sensor peak absorption = 530 nm (green).
- Oxygen peak emission = 650 nm (red).
- pH sensor peak absorption = 470 nm (blue).
- pH sensor peak emission = 530 nm (green).
- Light Emitting Diodes (LEDs) are used as the monochromatic excitation source.
- LEDs are operated at very low excitation energy densities to prevent detectable levels of photobleaching.
- Narrow band pass filters control spectral adherence.

Kinetic Resolution

- Rates are reported every 5-8 minutes.

Compound Injection Ports

- Compound injection ports are available.
- Injection volume is 75µL for an Agilent Seahorse XFe24 Analyzer; 25µL for an Agilent Seahorse XFe96 Analyzer and an Agilent Seahorse XFp Analyzer.
- Compound injection is pneumatically controlled.

Data Quality

- Because Agilent Seahorse XF assays are non-invasive, multiple measurements may be made to reduce data bias due to biological variability. Measurement-to-measurement within the same well demonstrates a coefficient of variation of 5% approximately equivalent to the instruments' background noise.
- Total variability between wells from all sources (instrument background plus biological variability due to cells) for the average trained user is <20%.



Agilent Technologies Singapore
(International) Pte. Ltd.
No. 1 Yishun Avenue 7
Singapore 768923

(65) 6377 1688 telephone
(65) 6270 8372 facsimile
www.agilent.com

MANUFACTURER'S AUTHORISATION

Ref. no – AG/ATSI/241219/1

Dated: 26 December 2019

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

Dear Sir

Ref: Tender No: Email enquiry request from Dr Vikram Saini, AIIMS – Purchase of Seahorse 96 well (XFe96) on Proprietary basis. for Extra Cellular Flux Analyzer

We, Agilent Technologies Singapore (International) Pte. Ltd., are the Original Equipment Manufacturer ("OEM") of Extra cellular Flux Analyzer having factory at No. 1 Yishun Avenue 7, Singapore 768923 hereby authorize Messrs. Labmate (Asia) Pvt. Ltd, 183, Baid Mehta Complex, Mount Road, Chennai – 600 015 who is authorized through Agilent Technologies India Pvt Ltd to submit a Quotation, process the same further and enter into a Rate Contract with you against your requirement as contained in the above referred Quotation Form for the above goods manufactured by us.

We also state that we are not participating directly in this bid for the following reason(s): As Labmate (Asia) Pvt. Ltd, is our authorized Distributor for Seahorse products bidding at All India Institute of Medical Sciences, Delhi, we will refrain from bidding directly.

We further confirm that no supplier or firm or individual other than Messrs. Labmate (Asia) Pvt. Ltd, 183, Baid Mehta Complex, Mount Road, Chennai – 600 015 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.

We hereby extend our standard warranty, CAMC as applicable as per clause 13 of the General conditions of contract, read with modification, if any in the special conditions of contract for the goods and services offered by the above firm against this TE document.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorized agent and the spares for the equipment shall be available for at least 10 years from the date of supply of equipment.

...../page 2



डॉ. विक्रम सैनी / Dr. Vikram Saini
सहायक आचार्य / Assistant Professor
संकाय इंचार्ज (मण्डार) / Faculty Incharg (Store)
जैव प्रौद्योगिकी विभाग / Dept. of Biotechnology
अ. भा. आ. सं., अंसारी नगर, नई दिल्ली-29
A.I.I.M.S., Ansari Nagar, New Delhi-29

(Company Registration: 201815040D)



डॉ. एस.एस. चौहान / Dr. S.S. Chauhan
आचार्य एवं अध्यक्ष / Professor & Head
जैव प्रौद्योगिकी विभाग
Dept. of Biotechnology
अ. भा. आ. सं., अंसारी नगर, नई दिल्ली-29
A.I.I.M.S., Ansari Nagar, New Delhi-29



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We also confirm that the price quoted by our agent shall not exceed than that which we would have quoted directly.

Yours Faithfully
For and on behalf of
Agilent Technologies Singapore (International) Pte. Ltd.



Tan Chong Wee Bernard
Director

Note: This letter of authority should be on the letterhead of the Manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

डॉ. विक्रम सैनी/Dr. Vikram Saini
सहायक आचार्य/Assistant Professor
संकाय इंचार्ज (आप्टर)/Faculty Incharg (Store)
जैव प्रौद्योगिकी विभाग/Dept. of Biotechnology
अ. भा. आ. सं., अंसारी नगर, नई दिल्ली-29
A.I.I.M.S., Ansari Nagar, New Delhi-29

(Company Registration: 201815040D)

डॉ. एस.एस. चौहान/Dr. S.S. Chauhan
आचार्य एवं अध्यक्ष/Professor & Head
जैव प्रौद्योगिकी विभाग
Dept. of Biotechnology
अ. भा. आ. सं., अंसारी नगर, नई दिल्ली-29
A.I.I.M.S., Ansari Nagar, New Delhi-29

Manufacturers' Authorization Form

Date: 2019-11-08

Our Reference No: AG/ATSI/081119/1

To,
All India Institute of Medical Sciences
The Head of Department
Department of Biotechnology
All India Institute of Medical Sciences
Ansari Road, New Delhi-110029

Dear Sirs

Ref : Tender No: Email enquiry request from Dr Vikram Saini, AIIMS – Purchase of Seahorse 96 well (XFe96) on Proprietary basis. for Extra Cellular Flux Analyzer

We, Agilent Technologies Singapore (International) Pte. Ltd., are the Original Equipment Manufacturer ("OEM") having our factory at No. 1 Yishun Avenue 7, Singapore 768923.

Labmate (Asia) Pvt. Ltd with its head office at 183, Baid Mehta Complex, Mount Road, Chennai – 600 015 is a distributor who is authorized through Agilent Technologies India Pvt Ltd, a group company of the OEM to be responsible for pre-sales, sales warranty and post-warranty services and application support of the Agilent range of products. Labmate (Asia) Pvt. Ltd 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 tender for the goods manufactured by us viz: Extra Cellular Flux Analyzer.

No company or firm or individual other than Labmate (Asia) Pvt. Ltd 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 tender for the goods manufactured by us.

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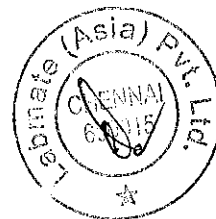


डॉ. विक्रम सैनी / Dr. Vikram Saini
सहायक आचार्य / Assistant Professor
सकल इंचार्ज (भण्डार) / Faculty Incharge (Store)
जैव प्रौद्योगिकी विभाग / Dept. of Biotechnology
अ. भा. आ. सं., अंसारी नगर, नई दिल्ली-29
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(Company Registration: 201815040D)



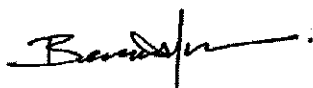
डॉ. एस.एस. चौहान / Dr. S.S. Chauhan
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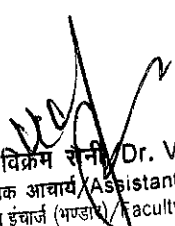
We hereby extend our standard warranty and comprehensive annual maintenance to Agilent Standard Instruments in the event of any change in distributor of Agilent Technologies India Pvt Ltd, during this contract period, either directly or through appointed distributor, without any additional cost to All India Institute of Medical Sciences.

Yours faithfully
For and on behalf of
Agilent Technologies Singapore (International) Pte. Ltd,



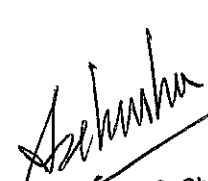
Tan Chong Wee Bernard
Director

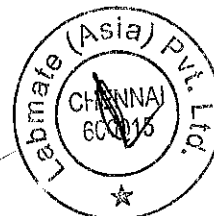



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सहायक आचार्य / Assistant Professor
संकाय इंचार्ज (भण्डार) / Faculty Incharge (Store)
जैव प्रौद्योगिकी विभाग / Dept. of Biotechnology
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A.I.I.M.S., Ansari Nagar, New Delhi-29

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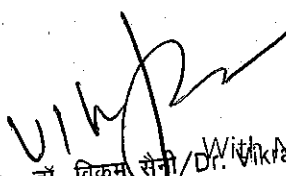

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI - 110029**

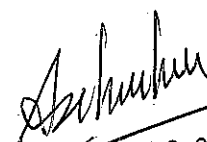

Proprietary Article Certificate (PAC) (Machinery & Equipment)

- (i) The indented goods are manufacture by M/s. M/s. Alligent Technologies (Singapore) Pvt. Ltd.
- (ii) Item Name: Agilent XFe96 Plus Analyzer
- (iii) Model No: XFe96
- (iv) Vital Technical Performance Parameters required which makes the requirement proprietary## High-throughput analysis of Bioenergetics & mitochondrial function, in Real-time & non-invasively.
- (v) No other make or model is acceptable for the following

reasons: No other make is available. This is the only company in the world of this product.

It is certified that market survey has been done and found that no other manufacturer is manufacturing similar/equivalent specifications which can fulfill the vital requirements of end user.


 **डॉ. विक्रम सैनी / Dr. Vikram Saini**
 सहायक आचार्य / Assistant Professor
 संकाय ईवाज (मण्डार) / Faculty Incharg (Store)
 जैव प्रौद्योगिकी विभाग / Dept. of Biotechnology
 अ. भा. आ. सं., अंसारी नगर, नई दिल्ली-29
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 आचार्य एवं अध्यक्ष / Professor & Head
 जैव प्रौद्योगिकी विभाग / Dept. of Biotechnology
 अ. भा. आ. सं., अंसारी नगर, नई दिल्ली-29
 A.I.I.M.S., Ansari Nagar, New Delhi-29

Note 1: TSEC should clearly mention the vital functional parameters requirements which end user essentially require and are manufactured by only one manufacturer mentioned in serial no. (i).