

नागालैण्ड  
NAGALAND



विश्वविद्यालय  
UNIVERSITY

*Speed Post*

(संसद द्वारा पारित अधिनियम 1989, क्रमांक 35 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)  
(A Central University Established by the Act of Parliament No.35 of 1989)

मुख्यालय : लुमामी, जिला : जुन्हेबोटो (नागालैण्ड), पिन कोड - 798 627


Headquarters: Lumami, District: Zunheboto (Nagaland), Pin Code - 798 627

No. NUL/RDC-21/DST-FIST/2016 -

Dated: 04.12.2019

NOTICE INVITING TENDER

Nagaland University invites sealed tenders from reputed Original Equipment Manufacturers/Authorised Dealers/Bidders for supply and installation of equipments under DST-FIST Programme for Department of Zoology, Nagaland University, Lumami. Interested firms may download the tender documents and Terms and Conditions from the University website: nagalanduniversity.ac.in and submit their quotations along with tender fees of Rs. 5,00/- (non-refundable) in the form of DD in favour of Registrar, Nagaland University, Lumami in sealed envelope superscript on the cover "Tender for supply of Equipments under DST-FIST Programme for Department of Zoology, Nagaland University, Lumami" and addressed to the undersigned on or before 05<sup>th</sup> January, 2020 up to 4:00. P.M.. No tenders will be accepted beyond this date and time.


  
(Dr. Abenmo) 04-12-19  
Registrar

No. NUL/RDC-21/DST-FIST/2016 - 6930

Dated: 04.12.2019

Copy to:-

1. The PRO, Nagaland University, Lumami for kind information of Vice Chancellor
2. The P.A to Registrar Nagaland University, Lumami for kind information of the Registrar
3. The Finance Officer, Nagaland University, Lumami for kind information
4. The Head, Deptt. of Zoology, Nagaland University, Lumami for kind information.
5. The System Administrator, NU, Lumami, with a request to upload the NIT in the University website
6. The Editor, Nagaland Post, Dimapur, with a request for publication in the next daily issue ( size 6cm x 8cm ). Bills in triplicate should be submitted for payment. It's a one time publication
7. The Editor, Arihant Advertising Agency, S.R.C.B. Road, Fancy Bazar, Guwahati - 781001 with a request to publish in the Times of India, North East Edition (size 6 cm x 8 cm). Bills in triplicate should be submitted for payment. Its an one time publication
8. Office copy

  
(Dr. Abenmo) 04-12-19  
Registrar

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#### TERMS AND CONDITIONS:

1. Dealership certificate/Authorization certificate from the Manufacturer should be enclosed.
2. Tax should be clearly indicate.
3. The Rates are FOR Nagaland University, Lumami.
4. Delivery of the items should be within 30 days from issue of order.
5. EMD of 2% of the total quoted prize in the form of DD should be deposited in favour of the Registrar, Nagaland University, Lumami
6. The University reserves the right to accept or reject the tenders without assigning any reasons thereof and no representation will be accepted.

#### TERM OF PAYMENT

100% Payment after the receipt, inspection, acceptance of materials and successful installation of all the materials.

#### WARRANTY

The items should be warranted against defects for a minimum of 1 (one) year from the date of installation. Defective items should be replaced at the cost of supplier.

**NOTE: Offers not agreeing with the above terms are liable for rejection.**

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TENDER DOCUMENT FOR SUPPLY OF EQUIPMENTS UNDER DST-FIST PROGRAMME FOR  
DEPARTMENT OF ZOOLOGY, NAGALAND UNIVERSITY, LUMAMI

Name of the Firm : \_\_\_\_\_

Address : \_\_\_\_\_

Phone No : \_\_\_\_\_

Email ID : \_\_\_\_\_

Sign & Seal

# ANNEXURE-1 (UPLC)

## SPECIFICATION FOR ANALYTICAL CUM SEMI-PREPARATIVE HPLC SYSTEM WITH UV/VISIBLE DETECTOR SHOULD BE FULLY SOFTWARE CONTROLLED

### 1. HPLC Pump ( or Solvent Delivery System) - 2 NO.'s

- 2 Nos. of integrated HPLC pumps with dual reciprocating pistons and non circular gear driven, free standing pump should be provided to work in Isocratic, Binary Gradient and semi preparative mode. The pumps should be able to work on fully analytical & semi-preparative mode separately with different pump heads for Analytical & Semi-preparative applications. A pump drawing / design must be shared in the Bid.
- Programmable flow range: 0.000 to 10.000 ml/min per pump with 0.01 ml/min increment or better for all kinds of Semi-Preparative application.
- The system should be capable of delivering precise volumes of mobile phase with minimum 48 step/ $\mu$ l or better.
- Flow Precision: 0.1% RSD or better.
- Maximum Pressure: 6000 psi throughout entire Flow rate.
- The system delay volume should be lesser than 200  $\mu$ l. Data Sheets must be properly mentioned.
- Flow accuracy : + 1% or better.
- The system should be capable to withstand the retention time variations of less than 0.1% for highly reproducible peak performance.
- Should have the capability to operate in at least 11 or more various gradient curve mode including Linear, Step, Concave, Convex. Exponential etc.

### 2. Manual injector

- The manual injector should be fully integrated with the pump. No separate free standing panel should be there for the injection. A sketch / drawing should also need to be provided along with the technical details which must show the same.
- Should come with 5, 20, 50 and 200 $\mu$ l sample loops along with 25 $\mu$ l syringe.
- Should have the construction for sample load without interruption of flow.
- Death volume-free syringe guidance must be present along with Built-in injector signal.

### 3. UV/VISIBLE DETECTOR :

- Wavelength range: 190 to 700 nm or better.
- Measurement range should be 0.0001-4.0000AU or better.
- Optics: Dual wavelength
- Noise:  $<5 \times 10^{-6}$  AU (single channel) and  $<35 \times 10^{-6}$  AU (dual channel)
- Detector should be linear to 2.5 AU or better.
- Flow Cell Design: Should be Taper Slit to avoid Total Internal Reflection.
- Bandwidth:  $\leq 5$ nm or better.
- Wavelength accuracy: + 1nm preferably by Erbium Filter.
- Light Source: Deuterium Lamp which should cover the entire range.
- Lamp should be guaranteed for a minimum of 2000 hrs of operation without drop in the energy level with appropriate backup from software and hardware. It should be associated with Lamp optimization software to ensure consistent high sensitivity applications & reproducible integration to new lamp or old lamp.
- Sampling Rate: Upto 80 points / s or better.

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4. Original Manufacturer's Licensed Software

- Chromatography software with integrated database (Oracle 8.0)
- It must come with 5 named users license & must be connected with 2 numbers of HPLC system at a time & must work simultaneously.
- Oracle database for easy tracking and trending: \*Instrument Method, Processing Method, Report Method, etc.
- Custom field / Custom calculations.
- Pre-made templates, customizable data reports, online help and answer Wizards are all included to help maximize your lab's productivity.
- Each injection is time and date stamped for easy archiving, retrieval of data.
- Drag and Drop, look and feel of Windows.
- Report publisher facility for customized reports.
- Custom reporting with view filters for easy retrieval.
- Scale from a single workstation to an enterprise wide network.
- Software should offer multiple levels of password, security to ensure the integrity of all your raw data and results and extensive audit trail.
- Security of data, custom reporting with view filters for easy retrieval.
- Report publisher facility for customized reports.
- The software should be able to show the capability of the system to operate in at least 11 or more various curve mode including Linear, Step, Concave, Convex, Exponential etc.
- It should be up gradable for automated method development Software.

5. Accessories

- C18 Column (250 x 4.6 mm x 5 $\mu$ ): 1 No.
- 6. Warranty: 1 Year comprehensive on the entire instrument.
- 7. The Quoted model must have a reference of at least 10 numbers in the eastern region.

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www.foxmail.com

**Fully Automatic Cryostat Microtome**

- Should have motorised feed, sectioning drive, dual compressor for rapid freezing and emergency stop for immediate stopping
- Should have arbitrary switching between trimming and sectioning
- Should have adjustable cutting angle, portable with four castors and UV Sterilization
- Should have automatic and manual defrosting
- Should have new blade holder for finger safety
- Should have enclosed drainage system, anti-roll device, section Counter, frost free encapsulated microtome assembly, visible operating parameters at all times and user-Friendly Control Panel
  
- Section Thickness Range should be 1-60 microns
- Increment Range (I) should be 1-10 micron in 1 micron increments
- Increment Range (II) should be 10-20 microns in 2 micron increments
- Increment Range (III) should be From 20-60 micron in 5 micron increments
- Trimming Range should be 10-300 microns in 10 micron increments
- Maximum Specimen Size should be 35 x 35 mm
- Horizontal Specimen Feed should be 25 mm
- Vertical Specimen Stroke should be 65 mm
- Motorized Coarse Feed should be 480 microns/ sec
- Specimen Retraction should be 5-75 microns in 1 micron increments
- Specimen Orientation should be 8 degrees (X-Y axis)
- Cryo Chamber Temperature should be -1 to -30 deg C Adjustable -
- Cooling down Time should be - 30 deg C 60 mins.
- Quick Freeze Shelf Temperature should be < - 50 deg C
- Chamber defrosting should be Programmable or Manual
- Lowest Temperature of Peltier Unit should be -55 deg. C
- Nos. of Freezing Stations should be 10
- Nominal Voltage should be 220V
- Nominal Frequency should be 50-60 Hz
- Dimensions (WxDxH) should be 660 x 640 x 1130 mm
- Weight should be 140kgs

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Signature / Luminar 7/20/2021

## ANNEXURE-3

### **Water purification system**

- System should have online resistivity meter- displays product water quality for continuous monitoring
- System should have Automatic flush device (AFD) to ensures periodical cleaning of the filter system
- System should have integrated recirculation system to ensures consistent quality of water and reduces TOC to low levels (2-5 ppb)
- System should have Dry run protection to ensures protection of the pump when the inlet water is unavailable
- System should have optional point-of-user filter to ensure compliance to microbial reduction values
- System should have optional flexible dispensing to remote water dispenser offers dispensing at various angles and heights
- System should have electrolytic auto sanitizer to ensures periodic sanitization of upstream purifying filters
- System should have high purity storage tank – a built-in UV, protective air filter and high grade tank material ensures sustained purity while in storage

### **Feed Water Specifications should be as mentioned below:**

- TDS: 500 PPM MAX
- Fe, Mn: NIL
- Free Chlorine: NIL
- Silica: < 20 PPM
- TOC: < 03 PPM
- Inlet Pressure: 0.5 - 2.0 Kg/cm<sup>2</sup>

### **Product Water Specifications should be as mentioned below:**

- Product Flow to Storage Tank should be 10 ltr/hr
- Dispensing Flow should be 1-1.5 ltr/Min
- Pure Water Resistivity should be 18.2 MΩ
- Pure Water Resistivity should be > 10 MΩ
- Endotoxin Level should be < 0.001 EU/ml
- Particle > 0.22 μm: < 1 per ml
- Bacteria: < 0.1 cfu/ml
- Total Organic Carbon (TOC) should be < 5 ppb

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Water Purification System  
Water Purification System  
Water Purification System  
Water Purification System



## Specification For Elisa Reader

- Wavelength range 400–750 nm
- Filters All the six filters 415,450,490,595,655 and 750 nm must be present.
- Photometric range 0.0–3.5 OD
- Linearity  $\leq 1.0\%$  from 0.0–2.0 OD;  $\leq 2.0\%$  from 0.0–3.0 OD
- Accuracy  $\pm 1.0\%$  or 0.010 from 0.000–3.000 OD at 490 nm
- Precision 1.0% or 0.005 OD from 0.0–2.0 OD; 1.5% from 2.0–3.0 OD
- Resolution 0.001 OD
- Filter wheel capacity 8
- Plate shaking 3 speeds: low, mid, high; duration: 0–999 sec
- Read time 6 sec at single wavelength, 10 sec at dual wavelengths
- Data storage Calendar/clock function; 64 assay Protocols
- Flexible configurations with ability to read flat-, U-, or V-bottom microplates or 8- or 12-well strip plates
- In-Built Printer.
- Automatic calibration before each reading
- Variable-speed plate-shaking capability
- Easy-access 8-position filter wheel with 4 standard filters
- Data and protocol presentation on LCD display
- Onboard data storage of protocols, standard curves, and graphs
- Self-diagnostic capabilities to detect lamp burnout at startup
- Motorized door for plate loading

### Software specification:

#### High-Throughput Analysis and Reporting

- Running of 12 separate assays on the same plate
- Optional automatic printing upon completion of measurement
- Multiple-plate processing with automated data export
- Custom reporting function that provides one-button screening for predefined assays, such as for TSE Comprehensive Curve-Fit Analyses
- Linear, quadratic, cubic, or logistic (4-parameter) fit types
- Linear or logarithmic automatic axis scaling
- External standard curves for multiple plates
- Curve-fit graph overlay for comparison

Performance verification parameters include:

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- Accuracy
- Precision
- Linearity
- Spectral blocking

#### **Complex Kinetic Analyses**

- Choice of number of calculation points for Vmax
- Simple velocity calculation
- Negative or positive slope calculation
- Absorbance limit selection
- Kinetic correlation coefficient display and calculation for fit (r value)
- Real-time data acquisition display and ability to zoom in on a well
- Automatic scaling and real-time monitoring

*Ben J...*

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## ANNEXURE-5

### Freeze dryer FreeZone 2.5 Liter Benchtop Freeze Dryer-84° C (Lypplizer)

- Upright stainless steel collector coil capable of holding 2.5 L of ice before defrosting.
- Durable powder-coated and stainless steel construction
- Wear-resistant, quick-disconnect drain hoses
- Full color, 5" capacitive touch screen with Lyo-Works OS
- Real time display of collector temperature, vacuum level and optional End-Zone end point detection
- Automatic and manual start-up modes for collector cool down and vacuum pull down
- Vacuum set point, alerts, diagnostic tests, user manual, defrost control and optional drying accessory control
- Data logging stores and displays data in table or graph format, and may be exported via USB
- Settings include language (English, Spanish, French, German, or Italian), time, temperature (° C or ° F) and vacuum (mBar, Torr or Pa)
- Alerts can be emailed to user-entered addresses via Ethernet connection – Maintenance alert settings for vacuum pump and refrigeration – Security lock out
- USB port and Ethernet connection
- End-Zone compatible
- Hot gas defrost with auto shut off at +65° C (+149° F)
- Vacuum control valve\* Vacuum break valve Moisture sensor
- Compact benchtop design with a small footprint
- Stainless steel and powder-coated steel exterior
- Quick-disconnect drain hose fitting with hose connector. 18", 1/4" ID silicone tubing and clamp included
- Electrical receptacle for vacuum pump connection
- 3/4" OD vacuum connection, 50" of 3/4" ID vacuum hose and two clamps
- conform to the following standards: • UL Standard 61010-1 (115/230V, 60 Hz models) CAN/CSA C22.2 No. 61010-1 (115/230V, 60 Hz models) • CE Conformity marking (230V, 50 Hz models)
- Vacuum pump with a displacement of at least 98 L/min, 0.002mBar ultimate pressure and fitting for 3/4" ID vacuum hose.

### General Purpose Rotary Vane Vacuum Pump

- Designed for use with aqueous samples
- Ultimate vacuum (total pressure) 2 x 10<sup>-3</sup> mBar (1.5 micron) On/off switch. Two inlet adapters (1/2" and 3/4" OD). Cast aluminum casing and rubber feet
- Mode selector with two positions: High Vacuum and High Throughput
- • Auto shut down of your freeze dryer if 5 mBar isn't reached during start up
- Gas ballast with three positions: Closed, Low Flow and High Flow
- Single phase direct drive motor, totally enclosed and fan cooled. Should the motor overheat, the thermal overload device switches off the pump. When the pump cools down, the motor automatically restarts

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- Isolation valve seals the inlet to prevent oil and air contamination of the system in the event of power failure Include four each one liter bottles of vacuum pump oil and one exhaust filter with oil mist and odor filter element
- 8-Port Manifold
- Fast-Freeze Flasks, serum bottles, adapters and ampulesto be included

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ANNEXURE-6

Sl No	Brand And Model No	Specifications
01	HPE Proliant Server ML30 /ML350	Gen 10 E-2124, 1P 8GB-U S100i 4LFF NHP 350W PS ENTRY SRVER With Monitor, Operating System
02	Dell Power Edge T30 Server	Intel Xeon, 16GB ram, 1TB HDD, 19", Keyboard, Mouse , Operating System
03	Desktop HP/Dell/Acer	Core i3 8 <sup>th</sup> Gen, 4GB Ram, 1TB HDD, 19" Led, 3 Years warranty
04	Printer HP 1136 MFP	LaserJet all In one Print/Scan/Copy
05	Online UPS Better Power	3KVA online UPS Better Power With Isolation transformer, 8 Batteries 26AMP
06	Computer Table	Neel kamal
07	Computer Chair	Neel Kamal
08	Cisco	Cisco 24 Port Gigabit Switch 10/100/1000
09	Desktop UPS Elnova/APC	600VA-800VA

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