



UNIVERSITY OF CALICUT
NOTICE INVITING TENDER

No. 84305/DoR/Admin/2016

Calicut University (P.O.)
Dated, 06/02/2017

The Director, Directorate of Research, University of Calicut invites online tender for the Purchase of equipment for the Department of Biotechnology under KSCSTE Research Project with Dr Smitha VB, Assistant Professor, Dept. of Biotechnology as Principal Investigator. Rate quoted should be inclusive of taxes and all other charges. The bidders should remit 0.15% of the quoted amount as the cost of tender rounded to the nearest multiple of 100 subject to a maximum of Rs.25,000/- plus VAT @5%. EMD@1% of the quoted amount should be remitted. Detailed technical specifications (including catalogues and other details if any) should be uploaded under the heading Other Important *Documents*.

A Performance Security equivalent to 5% of the total value of the contract rounded to the nearest rupee should be submitted by the successful bidder for a contract value above Rs.1,00,000/-. The EMD and Performance Security are returnable. **Last date of receipt of documents submitted online is 28/02/2017 5 P.M. A pre-bid meeting will be conducted on 13.02.2017 11 A.M. at the office of the Deputy Registrar, Directorate of Research** Hard copies (Technical Bid) of the documents must be submitted to **Dr. Smitha VB, Principal Investigator, KSCSTE Project, Dept. of Biotechnology, University of Calicut, Calicut University (P.O.), Kerala – 673 635 on or before 04/03/2017 5.P.M.**

Items (needs to be quoted in separate)

Sl.No	Item	Qty
1	Pipette set (One nos. per each volume range)	6
2	Tissue culture hood [Class 100]	1
3	Western blot apparatus	1
4	Inverted phase contrast Microscope	1
5	CO ₂ Incubator	1

Detailed Specification

SL NO	ITEM	DESCRIPTION	QTY
1	PIPETTE SET	• Spring Loaded Tip Cone for connecting tips very tightly • Adjustment opening for adjusting pipettes to a specific liquid and volume. • Control Button with very low operating force, Color indication for pipette volume. • Tip ejector with very low operating force, positioned for perfect ergonomics. • Volume Display: 4 Digits with magnifier. • Perfect Piston System made out of Fortron. • Very easy removable lower part for cleaning pipette • Fully Autoclavable • No discoloration upon UV irradiation • 3 Years Warranty • Volume range 0.5 – 10 µl, 2– 20 µl, 10 – 100 µl, 20 – 200 µl, 500 – 5,000 µl,	
2	TISSUE CULTURE HOOD	• Classification : Class 100 • Main Filter : MINIPLEAT HEPA, Particle retention size : up to 0.3 Micron, Efficiency : 99.999% • Pre Filter : Particle retention size : up to 10micron, Efficiency: 98% • Work Table : SS 304 • Cabinet : Laminated Marine Plywood / GI PowderCoated / SS 304 • UV Light : UV Lamp of suitable length • Illumination : FL Lamp of suitable length • Switches : ON / OFF For Blower, UV, FL • Pressure Gauge : Inclined Liquid Column Manometer • Pet cock : SS petcock for air / gas • Front Door : Single piece polycarbonate sheet sliding upwards with counterweight • Stand : Square pipe mounting stand	

		with leveling jacks Supply : 220-230 Volts AC	
3	WESTERN BLOT APPARATUS	1. Vertical Electrophoresis Unit : 1 no • Number of gels - 2 Gels [Can be upgraded to 4-Gel] • Precast gels (Ready Gel precast gels) & • Handcast gels Gel size (W x L) -Precast: 8.6 x 6.8 cm -Handcast: 8.3 x 7.3 cm • Total buffer volume for 2 gels -700 ml • Total buffer volume for 4 gels -1,000 ml • Typical run times for SDS-PAGE -35–45 min (at 200 V constant) • Should come with sample loading guide , casting module with side-by- side casting stand , Stain Free SDS PAGE Kit & Broad range Protein Marker • Should be a modular system • Should be supplied with transblot module 2. Mini Format Western Transfer Apparatus : 1 no •System should provide rapid, high quality western transfer •Must accommodate atleast two mini gels of size at least 10 * 7.5 cm •Transfer time for both gels must be supported in a time frame of One hour •Overnight transfer must also be taken care •Preferably with a cooling unit to take care of heat generated •The unit should be mountable on a Magnetic Stirrer and should also be cold room compatible. •Buffer requirement should not exceed 450 ml – 500ml per run •Modularity of same tank to run PAGE gels must be available. • Should be available either as a stand-alone apparatus or as a module compatible with mini SDS Page Gel running apparatus •Transfer cassettes & electrodes should be color coded to ensure proper orientation of the gel during transfers. •The apparatus should come complete with Gel Holder cassettes, foam pads, modular electrode assemblies, cooling unit within Tank, lower buffer tank and lid with power cables. 3. Power Supply for SDS PAGE Blotting Apparatus	

		• Output range (programmable): 10–300 V, fully adjustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 W maximum • Type of output: Constant voltage, constant current with automatic crossover • Output terminals: 4 pair recessed banana jacks floating in parallel • Timer: 1–999 min, fully adjustable • Pause/resume run function: YES • Display: LED • Operating conditions: 0–40°C; 0–95% humidity in the absence of condensation • Safety compliance: EN–61010 • EMI: Conforms to CE Standards for Emissions and Immunity class A, tested only at 230 V; TÜV EMC certification • Safety features: No-load detection, sudden load change detection, overload/short circuit protection, input line protection, auto power-up after power failure • Input protection: Fuse on both hot and neutral • Input power (actual): 90–120 or 198–264 VAC, 50 or 60 Hz, auto switching	
4	INVERTED PHASE CONTRAST MICROSCOPE	<u>LED Inverted Microscope for Fluorescent, Phase contrast & IMC applications</u> • Trinocular Inverted microscope with transmitted light LED illumination more than 50,000 hours service life • Attachment for Bright field , phase contrast ,Integrated modulation contrast & 100 watt Fluorescence • Trinocular tube with vertical photo TV port positioned to the side of the tube with switchable light path 100% vis / 100% Photo-TV with 45° viewing angle • EYEPIECE HC PLAN 10X / 20 FN. • <u>Long working distance objectives</u> a. Objective 4x/0.10 c. Objective 20x/0.30 PH1 b. Objective 40x/0.75 PH2 d. Objective 10x/0.25 PH1 • Condenser S40/0.45 with a working distance of 40mm & NA 0.45. Designed for	

		BF, PH & IMC • A fixed stage on 3 point support, coaxial double knob for coarse and fine focus on both sides, Interface for exchangeable observation tube and phototubes, • Condenser holder stepless adjustable, including collector, aperture diaphragm and filter holder, • Illumination ON/OFF switch, • Universal holding frame, suitable for fixed stages with object guide of inverted microscope to fix petri dishes with diameters from 24 mm up to 68 mm or to fix slides with a length up to 120mm. Depending on the diameter and the height of petri dishes two movable holding devices are adjusted. Outer holder dimensions (LxWxH) in mm: 165 x 100 x 5 • Object guide for XY movements • Dust cover for stand <u>Optional</u> • Fluorescent attachment 100w Hg for UV, Blue, Green Excitations • <u>Fire wire High resolution Dedicated Scientific digital camera (7 MP)</u> Exclusively designed High resolution and high sensitive color digital camera for an actual resolution of 7 mega pixel in high resolution mode. Minimum 30 bit color depth, Exposure time 107 Micro seconds to 2.0 seconds. The camera has capability of getting live image on PC monitor through firewire interface. C Mount adapter 0.5x. <u>Image analyzer</u> for basic measurements, stitching, annotations & micron bar insertion. <u>Image analyzer</u> for basic measurements, annotations, Video Time-lapse, Image overlay & micron bar insertion • <u>Branded PC Configuration :</u> Minimum I5, 8G RAM, 27" LED Monitor, Windows 7 /8, Keyboard and Mouse and suitable UPS	
5	CO2 INCUBATOR	• Chamber Volume: 145 to 150 litres • The unit should be built with corrosion resistant, stainless steel interior (304) with electro polished finish.	

		• Easy install shelving with travel stop should be provided. • Fan assisted directed active airflow distribution system should be provided along with the system. • Heated outer door and directly heated humidity water reservoir system should be provided along with the system. Equipment should have stacking option. • The equipment should be supplied with moist heat decontamination feature. During decontamination routine all the sensors and fixtures should be in place, with convenient push button operation and a cycle indicator. • Bright, easy to use, door mounted control panel, featuring glove-friendly membrane keyboard and large LED displays should be supplied along with the system. • Independent over temperature protection with independent temperature sensor should be provided along with the system. • Auto-Start function and automatic calibration mode should be supplied standard along with the system. • Long life dual channel thermo conductivity CO2 detector with platinum thermistor should be provided along with unit. • <u>Temperature</u> a. Control : Microprocessor PID, 0.1⁰C b. Setpoint : 0.1⁰C c. Range : +4⁰C above ambient to 53⁰C or better d. Uniformity : +0.6⁰C @ 37⁰C e. Sensor : platinum PT1000 f. Display : panel mounted LED • <u>CO2</u> a. Control : Microprocessor PID, 0.1 b. Sensor : long service life in-chamber thermal conductivity sensor c. Readability : 0.1% d. Range : 0-20%	
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		e. Display : panel mounted LED, 0.1 ⁰ % increments • <u>Relative Humidity</u> a. Range : >90% b. Water Reservoir: integral, rapid recovery pan-less water system is preferred. • <u>Shelves</u> a. Construction: 304 stainless steel, perforated b. Standard : 3 should be provided c. Maximum : 8 or more option should be there. • Certifications: CE	
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- * All the claimed specifications should be mentioned in the broacher or catalogue of the equipment. Otherwise separate signed and stamped certificate directly from the manufacturer should be attached with the hard copy submission.
- * Submitted hard copies should compulsorily include (i) Relevant Brochure (ii) relevant certificates (iii) User list with contact email address (only of the exact quoted model will be relevant).
- * The equipment should have compulsorily 2 year warranty as part of the equipment.
- * Price for the 3rd year of warranty should be separately quoted.
- * The vendor should be ready to supply and complete the installation within 3 months of putting up purchase order.

Tender documents and tender schedule may be downloaded free of cost from the Website www.etenders.kerala.gov.in

All bid/tender documents are to be submitted online only and in the designated cover(s)/envelope(s) on the website. Tenders/Bids shall be accepted only through online mode on the website and no manual submission of the same shall be entertained. Late tenders will not be accepted.

Further details can be had from the **Dr. Smitha VB, Principal Investigator, KSCSTE Project, Department of Biotechnology, University of Calicut** during working hours (91 8139866731).

Online Payment modes: The tender document fees can be paid in the following manner through e-Payment:

i. State Bank of Travancore (SBT) Internet Banking: If a bidder has a SBT internet banking account, then, during the online bid submission process, bidder shall select SBT option and then select Internet banking option. The e-Procurement system will re-direct the bidder to SBT's internet banking page where he can enter his internet banking credentials and transfer the tender document amount.

ii. National Electronic Fund Transfer (NEFT): If a bidder holds bank account in a different bank, then, during the online bid submission process, bidder shall select NEFT option. An online remittance form would be generated, which the bidder can use for transferring amount through NEFT either by using internet banking of his bank or visiting nearest branch of his bank. After obtaining the successful transaction receipt no., the bidder has to update the same in e Procurement system for completing the process of bid submission. Bidder should only use the details given in the Remittance form for making a NEFT payment otherwise payment would result in failure in e- Procurement system.

As NEFT payment status confirmation is not received by e-Procurement system on a real time basis, bidders are advised to exercise NEFT mode of payment option at least 48 hours prior to the last date and time of bid submission to avoid any payment issues. NEFT payment should be done according to following guidelines:

i. Single transaction for remitting Tender document fee and EMD: Bidder should ensure that tender document fees and EMD are remitted as one single transaction.

ii. Account number as per Remittance Form only: Account no. entered during NEFT remittance at any bank counter or during adding beneficiary account in Internet banking site should be the same as it appears in the remittance form generated for that particular bid by the e Procurement system. Bidder should ensure that tender document fees and EMD are remitted only to the account number given in the Remittance form provided by e- Procurement system for that particular tender. Bidders must ensure that the banker inputs the Account Number (which is case sensitive) as displayed in the Remittance form. No additional information like bidder name, company name, etc. should be entered in the account no. column along with account no. for NEFT remittance.

iii. Only NEFT Remittance Allowed: RTGS payments, Account to Account transfers, State Bank Group Transfers (GRPT) or Cash payments are not allowed and are treated as invalid mode of payments. Bidder must ensure that the banker does NEFT transaction only irrespective of the amount and specially instruct the banks not to convert the payment type to RTGS or GRPT.

iv. Amount as per Remittance form: Bidder should ensure that the amount being remitted is neither less nor higher than the amount shown in remittance form.

v. UTR Number: Bidders should ensure that the remittance confirmation (UTR number) received after NEFT transfer should be updated as it is, in the e-Procurement system for tracking the payment.

vi. One Remittance Form per Bidder and per Bid: The remittance form provided by e-Procurement system shall be valid for that particular bidder and bid and should not be re-used for any other tender or bid or by any other bidder.

Any transaction charges levied while using any of the above modes of online payment has been borne by the bidder. The supplier/contractor's bid will be evaluated only if payment status against bidder is showing "Success" during bid opening.

DIRECTOR
DIRECTORATE OF RESEARCH
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MALAPPURAM, KERALA STATE