PONDICHERRY UNIVERSITY
PUDUCHERRY – 605 014.

27.06.2011

TENDER NOTICE FOR SCIENTIFIC & LABORATORY EQUIPMENTS

Pondicherry University invites sealed tenders under Two Bid systems (Technical and Commercial) for purchase of various Major Scientific Equipments under IPLS (DBT) Project.

The complete details regarding Specifications, Technical details, Eligibility, Tender Document Fee, EMD, address and Method for submission of Bid Documents, etc. are available on the University website: www.pondiuni.edu.in

The last date and time for submission of tenders is Friday, 22.07.2011 by 3.00 pm.

REGISTRAR

PONDICHERRY UNIVERSWITY
SCHOOL OF LIFE SCIENCES
DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

TENDER NOTICE

27.06.2011

PU/DBMB/DBT-IPLS/Equipts.ADVT/2011-12/

The Co-ordinator, DBT-IPLS, Department of Biochemistry and Molecular Biology, Pondicherry University invite sealedd tenders in Two Bid systems from reputed Foreign/ Indian Manufacturers/ authorised dealers for the supply of the following items:

S. No.	Name of the Equipment (Imported)	Qnty	Tender fee
1	Carbon Dioxide (CO_2) Incubator	2 No.	Rs. 500/-
2	Isothermal Titration Calorimeter	1 No.	Rs. 500/-
3	Lyophilizer with vacuum concentrator	1 No.	Rs. 500/-
4	Rota Evaporator	2 Nos.	Rs. 500/-
5	Fluorescence Inverted Microscope	1No.	Rs. 500/-
6	Thermocycler	4 Nos.	Rs. 500/-
7	-80 C Freezer	1No.	Rs. 500/-
8	Autosampler for LCMS and other accessories	1No.	Rs. 500/-
9	Microarray	1No.	Rs. 500/-
10	Picodrop UV/VIS Spectrophotometer	1No.	Rs. 500/-
11	High Performance Thin Layer Chromatography	1No.	Rs. 500/-
12	Fermentor	1No.	Rs. 500/-
13	Plant Cell culture facility	1No.	Rs. 500/-

Non-transferable tender document can be obtained against a written request to the Information facility centre, Pondicherry University, Pondicherry – 605014 on all working days on payment of non-refundable tender fee mentioned above as DD favouring "Finance Officer, Pondicherry University" payable at Pondicherry. The last date for receipt of tender is up to **22.07.2011 by 3.00 PM.** The Earnest money deposit of 2.5% of the quoted value must accompany the tender documents. The University will not be responsible for loss or postal delay of tender documents. The filled-up tender may be dropped in the box kept at the Information Facility Centre with clear superscription" Tender for the Equipment- Department of Biochemistry & Molecular Biology.

Details can also be downloaded from the University Website: **www.pondiuni.edu.in**
Tender fee should be enclosed with the quotation.

REGISTRAR

Tender Document
PONDICHERRY UNIVERSITY
SCHOOL OF LIFE SCIENCES
(R.V.NAGAR, KALAPET,PUDUCHERRY-605 014)
SCHDULED OF TERM & CONDITIONS

Sub: Supply of Major Equipments (Imported) for the School of Life Sciences – Reg.

Schduled of Requirements

Sealed tender are invited under **two bid systems** for Major Scientific Equipments as per the technical details and specifications given below:-

Specifications & Allied Technical Details

SPECIFICATIONS

1. Carbon Dioxide (CO_2) Incubator

i) Water Jacketed CO2 Incubator with O2 Sensor:

Class 100 air quality and filtered air exchange condensation control system

Polished stainless steel interior, perforated ss shelves

Insulated outer door and Cleanable inner door gasket

Remote alarm contacts, outer door safety sensor, with Dual Pane, self heating inner glass door

Standard SS Shelves & One Humidification Pan along with CO2 and O2 regulators and gas guard

Independent glass inner door kit and Incubator chamber.

Temperature Control (+/-0.1ºC), Range 5ºC above ambient to 55ºC with temperature safety;

CO2/O2 Control: Better than +/-0.1%, CO2 range (0-20%), O2 Range(1-20%) and Inlet pressure (15 PSIG(1.0 bar) with CO2 & O2 sensors;

Relative Humidity (Ambient to 95%@ 37ºC)

Dimensions- Exterior (HxWxD) 39.5 x 26.0 x 25.0 (in)**,** Interior(HxWxD) 26.8 x 21.3 x 20.0 (in)**;**Water Jacketed with perforated stainless steel Shelves (4 No's)

ii) Air Jacketed CO2 Incubator:

With Class 100 air quality and filtered air exchange condensation control system, Polished ss interior, with minimum 6 perforated ss shelves

Insulated heated outer door and cleanable inner door gasket

Remote alarm contacts and outer door safety sensor, with Dual Pane.

Self heating inner glass door and humidification pan along with CO2 regulator, CO2 gas guard.

With minimum 8 glass inner door kit and Incubator chamber

2. Isothermal Titration Calorimeter (ITC)

Microprocessor controlled Isothermal Titration Calorimeter system with degassing and cleaning station for research on binding and kinetic studies on dilute biological macro molecules with latest software for data analysis.

Temperature Range	-	2 to 80 ° C
Temperature Stability	-	±0.0002° C @ 25 °C
Min. and Max. Detectable Heat	-	0.05µJ and 3000µJ respectively
Baseline Stability	-	±0.02µW/hr
Noise Level	-	≤0.0014µW
Response Time	-	11 seconds or better
Cell Volume	-	190µl or less
Cell Configuration	-	Fixed in Place –Cylindrical or better
Cell Material	-	Gold 24K
Injection Syringe Volume	-	50µl
Warranty	-	3 years + 2 yrs free AMC

3. Lyophilizer with vacuum concentrator

Fluid-cooled

Approximately 10” x 14” heated product shelf with a shelf temperature of ≤ -70^{o}C to ≥ +60^{o}C

Quick seal valves for ampoules, vials and flasks.

Condenser coil of ≥ 6 L, Unit of -85^{o}C with wizard 2.0, Micro processor-based control system with manual and automatic shelf control

Leybold 2.5E Vacuum pump, 65 LPM – 2-stage w/gas ballast,

Vacuum brake system, Stoppering configuration – pneumatic top down stoppering, 60psi air or gas for operation, 2 ml vial with Split Stopper (10Pk)

5ml vial with split stopper (10 Pk)

≥300 ml wide mouth filter seal flask Assembly (minimum 3 nos.)

3 years warranty and 2 yrs free AMC

4. Rota Evaporator

Plastic glass reflux condenser
motorized electronic jack with automatic lifting and graphical display
flask inbuilt clips for various sizes of flasks (50ml – 4000 ml)
stainless steel heating bath with temperature range from 30-180 degree Celcius.
Vacuum controller with solvent library database and data transfer facility
Timer function, solvent resistant vacuum pump, flow rate 1.8 cu.m/h, vacuum upto ≤ 9m bar with secondary condenser.
Recirculation chiller with cooler unit for condenser and integral circulating pump and coolant reservoir in the range -10degree Celcius to 40 degree Celcius and vapor ducts, stop cocks
Hoses of various sizes, insulating tubes, control cables, gasket seal
Evaporation flasks of sizes between 50 ml – 4,000 ml.

5. Fluorescence Inverted Microscope

Description	Specifications
General:	Inverted fluorescence microscope with fast research grade high resolution CCD camera and image analysis system
Optical System:	Epi-fluorescence inverted incident light excitation, Phase contrast illumination, Bright field transmitted, light, diasporic tungsten-halogen and high pressure mercury arc lamps,
Epi-fluorescence attachment:	With filter cassette and Mercury lamp, Lamphouse for 100W, Collector lens, Mercury Lamp socket for 100W, Starter unit for 100W, Lamp centering tool, Mercury Lamp 100W and Power cord
Observation Tube:	Binocular type
Objectives:	WDPlan Achromat 4x/0.1, Plan A Chromat Phase 10x/0.25 and 20x /0.45 and 40x/0.6
Eye piece:	Widefiled 10x focusable with diopter adjustment, 10x with cross line, focusable with diopter, 12.5x focusable with diopter and 15x focusable with diopter adjustments.
Reticles:	Cross line reticle 023 mm with micrometer scale (100 div in 10mm)
Nose piece:	Quintuple reversed with splash protection
Coarse/fine focusing:	coaxially positioned control knobs, coarse 42mm rotation, fine0.2mm/rotation, Min increment 2 um, Coarse motion torque adjustable
Stage:	Plain stage 200 x 260mm, hard coated surface; Mechanical Stage for viewing specimens on Tissue culture plate/flask and microscopic slide
Substage illumination:	Plain stage 200 x 260 mm, hard coated surface, 6V/30W Quartz halogen lamp in centerable housing and integrated diffuser
Condenser:	Focusable ELWD NA 0.30/72 mm and/or LWD NA 050/28 mm, and Phase Slider
Phase Contrast:	Phase slider with centerable PH1,BF ,PH3, for LWD and ELWD condensers.
Fluorescence Attachments:	Fluorescence mirror unit cassette (6 position) with shutter and shockless mechanism, including color beads for indication (Blue (6 pcs), Red (6 pcs) and Green (6 pcs)) Fluorescence illuminator (340nm applicable) with filter slider (32mm dia.), including UV light protection plate and a Lamp house for 100W mercury with bulb
Filter Cubes:	wide band Blue, wide band Green, wide band Red, wide band UV (330-380) and emplty filter, with their respective exciter, emitter and dichroic; Neutral density filter
Software:	Image pro plus software Version 7.0
Essential Accessories: (at no extra cost)	3KVA Suitable UPS and stabilizer with one hour backup and 3 year warranty. Should provide dust cover and stage extension Plate Burner Mercury-HBO 100W/2-2 numbers All necessary consumables for initial installation and standardization All spare parts should be available with the supplier or principals for period of 10years
Power requirements:	Power input to be 220-240 VAC,50 Hz fitted with Indian type plug pin.
Conditions for operation:	The unit should be capable of being located and operated in an ambient temperature of 0-50oC and relative humidity 15-90%.

C-mount video adapters, CCD camera (for IR capture) having 5 megapixels with image resolution 2580x1944, progressive scan mode, Automatic/manual shutter, with auto exposure, white balance features, transfer speed:10MHz 10bit, pixelsize:3.4um x 3.4um.

6. Thermocycler

Gradient (230V/50-60Hz), with heated lid and a personal card

Universal Block for at least 96 x 0.2ml PCR Tube and 77 x 0.5 ml PCR Tube, A 8 x12 microtiter plate.

Be capable of testing at least a dozen different temperatures simultaneously across a gradient that is set between 1-20° C

Heating and cooling may be via peltier technology with a temperature control range of 4 °C to 99°C

Regulation Accuracy of ± 0.2°C/well

Block Homogeneity -20° C to 72° C: ≤ ±0.4° C 95° C: ≤ ± 0.5° C

Temperature control speed approx. 3 °C/s (heating) and 2 °C/s (cooling) or better; Heated lid Maximum number of cycle 99

Optimal, constant heating and cooling rates be guaranteed

Increment of temperature or time, raising and falling for Touch Down and long PCR. Precise control of the temperature. Instant incubation mode Auto calibration in tandem with temperature validation system, Log book function for error messages and new calibration

Variable ramps rising and falling for RAPD and PCR denaturation

Hold function for Hot Start PCR Temperature control via block or tube with Linking up program

Ramp time ≤ 1 sec

7. -80ºC freezer

Upright, 410 L; 14.5 Cu. Ft.

Programmable temperature range from -20°C to –86°C in 1°C increments, even at ambient temperature up to 32°C

Micro Processor controlled temperature and alarms with non-volatile memory

Air Circulation by reduced power consumption and no noise genetarion.

Hermetically-sealed two stage cascade refrigeration with capacity to cope in high-ambient conditions

Insulation with 5.1”, 130 mm thick polyurethane foam

Chamber with latchable inner door to minimize cold air loss when external door is opened and reduce power consumption to maintain temperature.

5 compartment with 4 adjustable height corrosion resistant Shelves with each compartment equipped with Insulated Inner Door with magnetic lock

Keyed locks on the outer doors and lids to keep out unauthorized users

Password to prevent unauthorized users from changing the temperature set point or alarm set point. Sufficient number of sample racks and 3 yr waranty

8. Schimadzu make Autosampler and accessories for LCMS:

Autosampler with recycle system and PDA detector for Shimadzu LCMS system

Auto Injector:

Total -volume sample injection, variable injection volume

Injection-volume setting range: 0.1µLto100µL

Number of processed samples: 100 sample of 1.5 ml vials

Injection-volume accuracy: 1% max
Injection-volume precision: RSD:0.3% max (for 10µL injection)
Cross-contamination : 0.005% max. (naphthalene, chlorhexidine)
Number of repeated injections : 30 max per sample
Needle rinsing : Set freely before and after sample injection
Operating pH range : pH1 to pH14

Should have cooling facility to keep the sample at below ambient temperature between 4 to 40 deg C. Necessary Vials and Rack should be supplied

Degasser:

Online Membrane type Degasser 3 lines (2 X mobile phase, 1 X auto sampler rinsing liquid
Degassed flow line capacity : 380µL

Photodiode Array Detector:

Light source: Deuterium (D2) lamp, tungsten (W) lamps

Number of diode elements: 512

Wavelength range : 190nm to 800nm

Preparative Cell for PDA Detector

Bandwidth : Selectable 1.2 nm / 8nm

Wavelength accuracy : 1 nm max

Wavelength precision : 0.1nm max

Noise : 0.6 x 10-5 AU

Drift : 5 x 10-4 AU/h

Linearity 2.0 AU (ASTM standard)

Functions: Contour output, spectrum library, MX plotting

Cell : Optical wavelength; 10mm, Capacity : 10µL, Pressure : 12 MPa

Cell temperature-control range: 5°C above room temperature to 50°C

Web control: Parameter setting, log management, management of consumable parts, etc

Buffer memory : Approx.20 minutes of data in the entire wavelength region (only when using LC solution)

High Pressure Flow Switching Valve:

High Pressure 6-port, 2-position valve with controller to perform automatic 2-column switching, on-line sample pretreatment or flow line switching.

Fraction Collector:

Flexible approach to manual and automated fraction collection

Should have facility to collect small and large scale preparative fractions

Necessary Vials and Rack should be supplied

C-18 Preparative Column, 10u, 250 x 21.2mm

Preparative Pump:

Should have ability for preparative and analytical application between the flow range of 0.01 to 150ml

Parallel type double plunger

Plunger capacity 250uL

Should have automatic rinsing facility

Flow rate precision – 0.1% RSD

Flow rate accuracy - +/- 1%

Should able to inject large volume of samples > 50ml and above

Necessary items should be supplied for selection of 4 different solvents

9. Microarray

Microarray system capable of handling exome and tiling arrays, applications such as Copy Number Analysis, Drug Metabolism Analysis, Genome-Wide SNP Genotyping, Molecular Cytogenetics, resequencing analysis, targeted SNP Genotyping Analysis, 3' IVT Expression Analysis, Gene Regulation Analysis, miRNA Analysis and Whole-transcript expression analysis.

Hybridization unit, fluidics station and imaging station with the option of high throughput automation. Microarray scanner should have a solid-state laser preventing the need for an external laser power supply or a special cooling system under the bench.

Microarray scanner should have a higher resolution scanning at pixilation from 2.5 µm down to 0.51 µm, automatically determined by array type. Scanner should have a sensitivity of less than 0.5 chromophore equivalents/µm2 .

Scanner should have technology for optimal image uniformity and collection efficiency across entire scan area with. Scanner should have provision for eliminating effects due to laser drift and reduce scanner to scanner variability. Scanner should have minimum dynamic Range of 16 Bit. Scanner should have features for checking and adjusting the changes in residual arc correction and x-linearity. The facility should have dedicated Fluidics Station for handling buffer solutions and for different important steps of microarray experiment like staining, destaining and washing.

Hybridization Oven should be capable of processing up to 64 arrays at one time. Hybridization Unit should have a Rotation Speed ranging from 10 to 80 RPM, should be programmable to 1 RPM. Hybridization Unit should have a oven Set Point Range from 30.0ºC to 70.0ºC, should be programmable to 0.1°C

10. UV/Vis Spectrophotometer

Path Length 1mm; Sample Volume minimum 2µl or less

CCD Detector

Photometric Linearity ≤ 1%

Photometric Range ≥ 0- ≤ 2.2 AU

Wavelength Range 230nm or less – 850nm or more

Accuracy 1nm or better; Resolution minimum 3nm

Ab Precision ≤0.003 (1nm); Detection Limit (DNA) ≤ 3ng/µl; Detection Limit (BSA) ≤ 0.1mg/ml; Read time ≤ 2 seconds

Automated and manual control

Suitable instrumentation for detection of concentration of the macromolecules such as Proteins and Nucleic Acids etc.

Accessories: as required if any

Warranty 3 years.

11. High Performance Thin Layer Chromatography (HPTLC):

Integrated TLC / HPTLC system for quantification, identification, finger printing and micro-preparative separations.

(A) HPTLC SYSTEM MANAGER software to control, document and manage all the instrumental steps of HPTLC analysis incl. application, development, scanning and photodocumentation. 32 bit, windows XP/ Vista based, upgradable. For creating and storing methods.

(B) SEMI AUTOMATIC SPOT / BAND APPLICATOR: Sample spot / band applicator: Spray on, 4 pattern Applicator ---Quantitative analysis, micro-preparative, in-situ and superimpose. 10-method memory storage, stand-alone or PC control. Sample positioning on X & Y axis freely selectable, variable rate of delivery, accepts 100 ul & 500 ul syringes. Self diagnostic + validation + Link to System Manager built-in.

(C) CHROMATOGRAM DEVELOPMENT CHAMBERS: All glass, small internal volume chambers, bottom divided into two halves; maximum 5-15 ml mobile phase /

run, S.S. leak - proof lid. Appropriate size chambers for 20 x 20, 20 x 10,10 x 10 cm plates.

(D) MULTIPURPOSE CHAMBER FOR METHOD DEVELOPMENT: Multipurpose Chamber for method development. Rapid screening of samples & for horizontal development. Uses 10 x 10 cm plates. Can run six mobile phases on one plate, side by side, at the same time with or without saturation. New method developed in 3 – 4 runs. With mobile phase creation guide.

(E) PROFESSIONAL TLC / HPTLC PHOTODOCUMENTATION SYSTEM under GLP :

Professional TLC / HPTLC Photodocumentation System, comprising : Illumination Unit, Industrial Camera and HPTLC specific software.

Illumination unit – with 254 + 366 nm UV. Visible light (above & below object). Uniform illumination. 60 KHz supply for instant, flickerless illumination. Easy access for changing tubes & filters and PCB. Auto switch off. Total darkness. Viewing window to see plate. Safety - UV switched off if door opened.

Camera 12 bit, high resolution industrial camera (4096 grey level resolution). Images of the highest quality. Fixed focus for total reproducibility. True colours capture. Very linear response. Individually calibrated.

HPTLC Specific Software – Automatic image optimization. Automatic exposure time to suit brightest zone within dynamic range of CCD. Full function annotation. R_f scale. Child image with or w/o ROI (Region of Interest) blow up. Auto image capture at 254nm and or 366nm and or white light. Raw data inaccessible to user. Spot application tool to detect faintest fractions. High speed data transfer 1 sec. / image. Link to System Manager

(F) 20 X 10 CM DIP TANK WITH LID FOR DERIVATIZATION

(G) TLC SCANNER WITH DATA EVALUTION :

Computer controlled Scanner / Densitometer for automatic spectrum scanning for identification and purity check. Automatic quantitative measurement by absorbance & fluorescence. All TLC / HPTLC plate sizes acceptable. Scan speed 100 mm / sec @ 25 µm resolution, Wavelength range 190-900 nm. Monochromator flushing by nitrogen. Data sampling rate – 4000 / sec. Optics for HPTLC measurements. Spectrum scan speed 100 nm / sec. Max 999 spectra / plate. Visible pilot slit image / scan compartment illumination with UV to check sample alignment with scan beam. D2, Hg, W lamps + self diagnostic + Service

dialog + Universal filter for fluorescence all built-in, scan slit size variable, bandwidth selectable 5 & 20nm. EPROM upgradable.

Easy to load plate. Small footprint.

Data evaluation 32 bit software (latest version), Improved S/N ratio. Improved reproducibility. Linked to System Manager, Automatic / Manual integration, Auto baseline correction. Spot check facility. 3D display with data storage. Calibration - single level, multilevel, linear / non-linear. Statistics CV / CI. Reproducibility check facility. Auto calculation of data from wts and dil. factors , Computer generated random no. for each report (GLP). Lamp use tracking. 2 level digital user manual. Service Dialog + self Diagnostics + Tutorial all built – in. Meets GLP. Optional IQ-OQ and 21 CFR Rule 11 certification.

ACCESSORIES

(H) AUTOMATIC TLC SAMPLER

Fully automatic TLC Sample Applicator, PC control or stand alone mode. Fully automatic application of samples as spots, bands or rectangles. By spray or contact application. Accepts 10, 25 or 100-µL syringe. Minimum application vol. 10 nL. Syringe cleaning automatic and programmable. Complete with instrument cover. Sample racks for 66 standard 2 mL vials (12 x 32mm), Link to System Manager. With startup requirements.

(I) GRADIENT AUTOMATIC MULTIPLE DEVELOPMENT CHAMBER

PC controlled unit comprising chromatogram developing chamber and control module. Upto 25 times multiple development in same direction. Upto 5 solvents to make gradient. Drying time selectable. Gas phase equilibration after every step. Mobile phase front monitoring by CCD. Vacuum sensor built in. Gradient display on screen. Validation software + self diagnostics built-in. V connector. Link to System Manager available (vacuum pump required)

(J) General conditions:

The high quality imported products must be matched by high quality local support. The Indian agent must have a team of Service Engineers, trained by foreign manufacturer, detailed service manuals and a stock of commonly required spares, consumables and small accessories.

For application support a local lab should be available for periodic training, solving analysis problems, library of books and references. Periodic training is an essential requirement and Indian agent must arrange training in their own lab and in customer's lab.

Training at the time of installation should be given by Application Chemist. Indian agent staff must be qualified for IQ-OQ certification and quote for local installation requirements such as N_2 cylinder with regulator, UPS / V. stabilizer, PC & printer, HPTLC plates, and syringes, etc..

12. Fermentor:

For microbial & cell culture application in a single vessel

Vessel capacity : 7 L

Working capacity : 5 L

MCC : Glass

Heating System: Insitu sterilization of vessel.

CONTROLLER: Modular Controller with online display of trend graph.

TEMPERATURE:

Range: 4-150 degree celcius

Sensor: Insitu sterilizable probe Pt 100

Inbuilt electrical heating unit for stream generator.

AGITATION

Drive : Bottem drive AC Motor

Range : 50-700 rpm.

Impellers : six blade stirrer, Baffle cage for Microbial application.

Options:

Impellers: Marine impeller for sensitive cell culture application.

AERATION

Air flow : Standard Rotameter , pressure control value, aeration filter (ceramic) in housing (SS)

Air pressure : 2-7 bar
Ventilation: Exhaust air filter (ceramics) in housing (ss) with pressure holding valve

pH

Range : 0-14

Probe : Insitu sterilizable Gel filled probe

Control : Through peristaltic pump (stand alone pumps)

DISSOLVED OXYGEN

Range : 0-100%

Probe : Insitu sterilizable polorographic

Control : Through airflow and cascade with speed control

ILLUMINATION UNIT for photosynthesis & phototropic organisms.

Easy to install with ON/OFF control.

OPTIONAL: Software: SCADA PACKAGE and data logging possible for future Integration); Continuous Culture for future Integration with level controller and 2 variable (stand alone) peristaltic pump (possible for future Integration)

Warranty: 3years from the date of Installation of complete system.

13. Plant cell culture facility

A. Equipments For Plant Cell Culture Facility:

a) Plant Cell Culture Growth Racks. Qt.6nos:
Height 7'1", width 4'2", Length 18", Shelves 6, Lighting facility in 5 shelves. Shelf to shelf distance 16". Shelf 50" x 18", 3mm Thick Glass/Hylem in each shelf. 3 Nos. Photosynthetically Active Radiation (PAR) Lights in One Shelf Three tube-lights 40-watt fluorescent cripton filled in one shelf with individual ON/OFF switch - Four Shelves. 15 solid state ballasts. 3 Photo simulators to drive PAR lights and Fluorescent lamps specially tested and approved by ERTL for use upto125 - 325V. FRAME 2.5 X 2.5 CM C.R.C. SQ. PIPE Castor – 4. Trolley be connected directly to photoperiodic Timer output. Input-200-240 V AC, 50 Hz, Single phase.

b) Horizontal Laminar Air Flow: Table top made of stainless Steel Size 8' x 2'x2'; Front and Side panel transparent and duly framed. Regulated blower units (Speed low and high) with velocity of 90ft/min ±20 %. Blower assembly should ensure noiseless and vibration free, and with a cock for gas / Vaccum (Brass/Stainless Steel).

c) Autoclave (microprocessor controlled)
Effective internal volume : 50 L
Chamber material : SUS304

Dimensions (mm) : 410W, 477D, 970Hmm (with projection: 574D)

d) Trinocular Inverted microscope with universal holder to accept specimen holder for Slide Glass, hemocytometer, petridish, microplate and Terasaki.

e) Vacuum Pressure pump kit inclusive of Vacuum pressure pump, 1 Lit. Filtration flask, Silicone Stopper, Silicone tubing and glass tube.

f) Lab-Shaker: Magnetic drive with maintenance free operation, precise shaking to give 50 to 500rpm with a speed control; Universal tray of size: 420 x 420mm to accommodate 25 mL or 50mL or 100 mL or 250 mL, 500ml or 1L flasks; Loading capacity approximately 25kg.

TERMS AND CONDITIONS

I. General Information: -

1. Last date and time of receipt of the Tenders: 22.07.2011 by 3.00 PM

2. Date & Time of opening of Tender: 25.07.2011 by 11.30 AM

3. Tender Document fee and EMD rates: -

S. No.	Equipments	Tender Document fee	E.M.D.
I.	For Major Scientific Equipments	Rs.500/-	2.5% of total value of the equipments

4. **Two bid systems** have to be strictly followed. (One for Technical bid and another for commercial bid to be submitted in separate covers)

5. However, the tender document fee and EMD as specified above should be remitted by each firm / bidder, collectively for all their bids advertised under this tender.

6. Quoting merely the lowest price does not confer any right to any bidder for award of supply order. The University's Purchase Committee, reserves the right to select the equipment any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support, additional warranty, offer of additional / special features, Compatibility with the existing System, Training, etc.

7. The Tender Document Fee and EMD should be submitted in a separate cover superscribing **Bank Demand Draft** and **which should be enclosed with the technical bid**.

8. The Photo Copies of the Bank Instruments on payment of EMD should be attached with each bidding covers.

9. The tender / quotation must be submitted along with the stipulated tender document fee and EMD in the sealed cover, super-scribing the name of the Department / Centre for whose equipments the tender is quoted for.

10. The cover should also contain the information like, Name of the Equipment and Serial Number of Equipments for which the bids are submitted. The name and address of the bidder should also be mentioned at the from address space.

11. The tenders should be addressed to the Registrar, Pondicherry University.

The examples for super-scribing the envelopes of the different categories of tenders are given below: -

For Major Scientific Equipments: -

Tender submitted under two bid system for the Dept.of Biochemistry & Molecular Biology
Name of the Equipment:_____

To

The Registrar,
Pondicherry University,
R.V. Nagar, Kalapet,
Puducherry – 605 014.

From
Supplier's Address

In case of local delivery, all tenders are to be dropped in the tender box placed at the Information Facilitation Counter, Bharat Ratna Dr.B.R.Ambedkar Administrative Block, Pondicherry University, R.V. Nagar, Kalapet, Puducherry – 605 014.

The tenders sent through fax / e-mail will not be accepted.

II. Common Conditions

1. Purchase of Tender Document:
The Tender document can be either downloaded from the University website **www.pondiuni.edu.in** or procured from the Information Facilitation Counter, Dr.Ambedkar Administrative Block, Pondicherry University on payment of fee as specified above, by means of a D.D, drawn in favour of **the Finance Officer, Pondicherry University, payable at Puducherry**. The downloaded application should be accompanied with the tender document fee, in the form of a Demand Draft.

Separate bids should be submitted.

2. Price Schedule
The bidder may either quote for the entire equipments or individual items required for the Dept of Biochemistry & Molecular Biology. The rates should be quoted for a single unit and also for the total quantity required by the University. The price should include the Delivery, installation, training charges (if any), etc. at the respective Department, Pondicherry University.

The prices quoted shall remain firm until equipment is supplied to the respective Department, Pondicherry University.

3. Quoting the Core price & Tax, Duties, Discount etc.
The taxes / duties / discounts, if applicable, are to be explicitly and separately shown in the bid.

4. Eligibility:
The firm must have the requisite domain expertise with regard to supply, installation and post-sale service of the items they are quoting.

The firm should have been in existence for at least six years as on the date of this tender and must have executed at least three orders for this kind of equipment during the last three years.

5. Duty Exemption

The University has been granted the benefit of exemption from the payment of the Central Excise Duty and Customs Duty by the Department of Scientific and Industrial Research (DSIR), India, vide their Notification No.10/97 dt. 01-03-1997 and 51/96 dt. 23.07.96 respectively,

in respect of

a. Scientific and technical instruments, apparatus, equipment including computers.
b. Accessories and spare parts of goods specified in (a) above and consumables.
c. Computer software, compact disks, CD ROM, Recording magnetic tapes, microfilms, micro-chips etc.
d. Prototypes.

Customs duties at Indian port, if any, will be to the account of the University.

6. Warranty:

The material covered under the purchase order, when installed, shall be warranted for the quality, workmanship, trouble free operation and performance for a period of **at least 36 months from the date of putting the system into operation** at the Pondicherry University, or at least 42 months from the date of receipt of the last lot of the consignment in India.

If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including shipping cost both ways.

7. The information pertaining to infra-structural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided by the bidder, at least 120 days in advance of the installation to be commenced if purchase order is issued. All drawing for electrical connections, electrical safety items piping work etc. must be provided in detail.

8. Complete technical specifications and literature, including process flow, to be included with the quotation. Manufacturers of various major parts/equipment must be mentioned explicitly.

9. A clear statement regarding availability of after-sales service and availability of spare-parts for next 5 to 10 years should be included.

10. A recent customer list (within last five years) with contact details including email address is to be submitted with technical bids / bids as the case may be.

11. If the bidder is an authorized representative in India, they are requested to inform their technical ability to take care of the problems in the system, if developed later within the warranty and outside the warranty period. The responsibility of the Indian agent must be clearly specified.

12. The bidder from abroad shall obtain, if required, export permission from the appropriate authorities in his country or the country of origin for items to be shipped to India in case of

items to be imported. The University shall provide necessary information if required for this purpose.

13. All equipment must operate at 230V/50 Hz single phase and / or equivalent three phase electrical power.

14. The validity of the each quotation should be at least 1 Year from closing date of the bid.

15. The offers will not be considered if received after the bid closing date and time.

16. The offers received through telex / tele-fax / e-mail will not be accepted by the University under any circumstances.

17. The University shall not be responsible for any delay / loss or non-receipt of tenders by post / courier service.

18. No unsolicited correspondence shall be entertained after the submission of the offer.

19. If an order is placed with the firm, the purchase shall be governed by an agreement as per the University rules in force at the time.

20. Additional terms and conditions will be incorporated in the purchase order, if needed, to safe guard the interests of the University.

21. Tender is not transferable

22. In case of any dispute in respect of the tender, all legal matters shall be instituted within the jurisdiction of the place where the purchaser ordinarily resides.

23. Power to reject the offer:
Pondicherry University reserves the right to accept / reject any offer in full or in part or accept any offer other than the lowest offer without assigning any reason thereof. Any offer containing incorrect and incomplete information shall be liable for rejection.

24. No Agency commission will be paid to any authorized agent in India.

25. Liquidated damages: Timely supply of the ordered items, installation, commissioning (wherever is applicable) and training etc. is the essence of the contract. In case of failure to supply within the time specified in the Purchase order, a penalty/LD of 0.5% of the total value per week or a part thereof shall be levied subject to a maximum of 7.5% in respect of items which are not supplied. The decision of Pondicherry University shall be final in this regard.

26. The training should be provided by the supplying companies on the specimen and operation of the equipments for a minimum period of two weeks from the date of installation with an expert team.
27. For any clarification with respect to technical specifications, please contact the respective Department Heads as per the details given below: -

S. No.	Name of the Department	Name of the Heads	Contact Numbers
1.	Dept. of Biochemistry & Molecular Biology	Dr. P.P.MATHUR Prof. & Co-ordinator DBT-IPLS Grant	0413-2654419 0413-2654252

III. Specific Conditions:

1. Payment of EMD:

The Tender must be accompanied by EMD as stated above, by means of a Demand Draft, drawn in favour of **the Finance Officer, Pondicherry University, payable at Puducherry** separately. *The amount is refundable. The Small Scale units are exempted from payment of EMD provided they should enclose proof of their exemption Certificate issued by the competent authority*.

2. Payments terms:

Normally a letter of Credit will be opened for 90% of CIP price, on receipt of order acknowledgement. However, 100% of the LC also be considered, if the supplier provide Bank Guarantee towards performance Security for the 10 % of the total cost of the equipment to cover the Warranty Period.

Bank charges in India shall be borne by the purchaser and outside India shall be borne by the contractor / supplier.

3. The offer must be in English. The rates should be indicated both in figures and words against item specified in the given table. It is preferable that the price be quoted in Rupees or in US Dollars or in major foreign currencies.

4. The total cost should be quoted for FOB as well as CIF – Pondicherry University.

5. However, the price quoted under FOB or should also include the following cost if they are required during the initial stage:

a) Local freight / insurance for Chennai airport to University laboratory.

b) Installation cost if any.

c) Cost of consumables which are required for the equipment for initial operation upto a reasonable time

6. In case of the Principal supplier of Foreign country unable to meet the conditions stated at para no.4, the local agent / dealer should fulfill the above said conditions in respect of Local Insurance, Freight, safety transport and installation, etc.

7. The bidder from within India shall obtain the requisite approval for Imports etc., if required

REGISTRAR

Date: 27.06.2011

ANNEXURE - I

BANK GUARANTEE

Pondicherry University
Bharat Ratana Dr. B R Ambedkar Administrative Building
R Venkataraman Nagar
Puducherry 605 014

This guarantee made this_____day of_____200_ by _____ Bank having its Registered Office at _____ and one of its branches at_____ (hereinafter referred to as "the Guarantor" which expression shall, unless it be repugnant to the subject, meaning or context thereof, be deemed to mean and include its successors and assigns) in favour of the Pondicherry University, Puducherry 605 014 represented by its Registrar, having his office at R. Venkataraman Nagar, Kalapet hereinafter referred to as the "University" which expression shall include his successors in office for an amount not exceeding Rs._____ (Rupees _____ only) at the request of M/s._____ (more fully described hereunder)

2. Whereas the University has placed Work Order No: PU/_____ dated_____ for_____
_____
with M/s._____ having its office at _____ and hereinafter referred to as the "Contractor" which expression shall include their successors and assigns.

3. And whereas the Contractor has accepted and agreed to execute the work as per the work order as per undertaking / agreement dated _____ within the time stipulated and in the manner specified therein.

4. And whereas the University has called upon the Contractor to furnish Bank Guarantee for the sum of Rs._____ (Rupees_____ _____ only) for fulfillment of the said work as specified in the work order and as agreed to by the Contractor.

5. And whereas the Contractor has requested the Guarantor herein to furnish an irrevocable and unconditional Bank Guarantee in favour of the University for an amount of Rs._____ as guarantee towards execution of the work as agreed to by the contractor to the University.

6. Now, therefore, we _____ Bank, the Guarantor herein, do hereby irrevocably and unconditionally Guarantee the payment to the University the sum not exceeding Rs._____ (Rupees_____ only) in the event of any breach, failure, neglect or inability on the part of the Contractor in the execution of the said work, on demand without reference of the matter to the Contractor and without any prior consent of the Contractor, at all times throughout the period of execution of the work, without demur, cavil or argument or delay.

7. The Guarantor agrees and undertakes that the decision of the University as to whether the contractor has committed any breach of the obligation with respect to the wok to be executed, and the quantum of amount therefore payable by the Contactor to the University in that regard, shall be final, binding and conclusive as against the Guarantor and the Guarantor shall make payment accordingly, on demand by the University.

8. The Guarantor further agrees and undertakes to pay to the University the amount demanded by the University irrespective of and not withstanding any dispute raised by the

Contractor in any suit or proceeding before any judicial forum relating to the Contracted work and the Guarantor's liability under this Guarantee shall be absolute and unequivocal.

9. This Guarantee is issued subject to the condition that the liability of this Guarantor under this guarantee is limited to the maximum of Rs._____ (Rupees _____ only) and the guarantee shall remain in full force up to _____ and cannot be invoked otherwise than by a written demand or claim by the University for the payment of the said amount by the Guarantor on or before_____ or any extended date as decided by the University.

10. This University shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the contracted work or to extend time for performance of the work by the Contractor. Any change to the contracted work shall not in any way release the Bank (Guarantor) from liability under this Guarantee and we waive notice of any such change. The University shall have full liberty to forbear or enforce any of the terms and conditions of the contracted work.

11. This Guarantee shall not be affected by any legal limitation, disability or other circumstances relating to the Contractor or the Guarantor.

12. This Guarantee shall be valid for the period upto _____ and shall extend further and beyond _____ for such period as determined by the University.

13. The Guarantor undertakes not to revoke this guarantee except with the previous consent of the University in writing.

14. Notwithstanding anything contained herein:

 Our liability under this guarantee shall be limited to Rs._____ (Rupees_____ only)

 This guarantee shall be valid upto _____ and for such further period as determined by the University for fulfillment of the contract.

 We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before _____ or such extended period / date.

In witness whereof, this Guarantee has been executed by _____ for an on behalf of the Bank (Guarantor) on the day, month and year first above written.

SIGNATURE AND SEAL
NAME OF THE BANK (GUARANTOR)
ADDRESS