

INDIAN INSTITUTE OF SCIENCE EDUCATION AND
RESEARCH-THIRUVANANTHAPURAM
[IISER-TVM]

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IISER/PUR/PT/02/10

Date: 06th May 2010

INVITATION TO TENDER

Dear Sirs,

SUB: LAB EQUIPMENTS

Sealed **TWO – PART** Tenders are invited for Equipments as per **SCHEDULE** attached. TWO – PART bids for each Tender shall be sent separately. **Instructions to Tenderers [Indigenous & Imports] are also attached.**

The due date for receipt of Tenders is 07TH JUNE 2010. Late and delayed offers will not be considered under any circumstances.

Thanking You,

Yours Faithfully

CONSULTANT
(PURCHASE & STORES)

IISER-TVM
PUBLIC TENDER NO. IISER/PUR/PT/02/10

SCHEDULE

1. TENDER No. IISER/PUR/573/10

FLOW CYTOMETER – 1 No.

Excitation Light source: Solid state 375 nm laser with optics for side population analysis with proper resolution, 488 nm laser, 633 nm HeNe laser, should have provision for future addition of more lasers (upgradation). System should be capable of simultaneous excitation with multiple lasers. Fixed alignment of all lasers, excitation and collection optics should be done by the manufacturer.

Emission: Should be capable of measuring at least nine colours simultaneously. Upgradable to 10 or higher number of colours.

Sorter: The system should have built-in sorter capable of four-way sorting. Sheath pressure should be in the range of 5-70 psi. Should have auto sampling option and capable of sampling from microtubes (1.5 ml) and 15 ml tubes.

Speed: Should be able to acquire 60,000- 70,000 events per second or higher. Sorting speed should be 60,000-70,000 events /second or higher.

Optics: Light paths optical fibre controlled for better sensitivity. Collection optics and flow cell should be regulated by optical array technology for better and faster collection efficiency.

Computer: System should come with Pentium branded PC with LCD colour monitors and a color printer. At least Pentium 4, minimum of 160 GB hard drive, DVD/CD-ROM read/write drive. Windows based Software for Instrument Control, Data Acquisition and Data Analysis.

Software: Should be fully integrated with the system, should have diverse data acquisition and analysis features. Additional off-line version of the software should be provided for off-line data analysis use.

Following Accessories may be quoted as optional:

- Cell deposition unit: should be automatic allowing multiwell plate and slide sorting.
- Aerosol management system
- Additional nozzles of varying sizes (50-150 microns)
- Quote additional third party analysis softwares

Installation and service: Two years of warranty

1. Bidder should clearly specify the after sales service including the after-warranty maintenance support cost. They also specify application support including after-sale service, laboratory training to researchers on regular basis.

2. Bidder should include the supply of appropriate online UPS system to support the complete system including lasers.
3. Bidder should provide all the pre-installation requirements to have the system installed in ideal room conditions.
4. Bidder should have at least 10 high end flow cytometry cell sorter installations in India with proven track record of maintenance and application support.

2. TENDER No. IISER/PUR/574/10

FLOOR MODEL REFRIGERATED ULTRACENTRIFUGE – 1 No.

Maximum speed: 100,000 rpm

Maximum g force: 800,000xg +/- 2000

Speed control accuracy should be not more than +/- 20 rpm ,

Temperature range: 0 C-40 C with 1 degree increment, Accuracy: not more than +/- 0.3

Imbalance tolerance: maximum of 10 % of volume .

CFC free thermoelectric air-cooled refrigeration

Should include dynamic rotor inertia check as a safety feature.

Timer: Up to 99hr or more with hold option.

Fully programmable, and programs can be stored.

ROTORS:

1. Titanium fixed angle rotor (1 number) (with 12 tube-places) maximum speed upto 50,000 RPM (at least 300,000 g), maximum volume capacity: anywhere between 450 to 500 ml total volume capacity. Rotor should include minimum of 6 number of O-rings and 2 overspeed disks.
Tubes and accessories: At least 50 number of thickwall re-usable tubes with caps/spacers of 12 number, one tube rack.
2. Titanium Swing-bucket rotor (1 number): Capacity: total volume capacity: At least 200 ml, maximum speed 30,000 RPM or higher (at least 170,000 g), should include buckets, and at least 50 numbers of reusable tubes.

Installation and service: 3 Years warranty

1. Bidder should clearly specify the after sales service support including their after-warranty annual maintenance support cost.
2. Bidder should include the supply of appropriate online UPS system to support the system.
3. Bidder should also provide a detailed list of users of the quoted system in India with contact details.

3. TENDER No. IISER/PUR/575/10

UPRIGHT MOTORIZED FLUORESCENCE MICROSCOPE – 1 NO

Specifications:

Filters for DIC, DAPI, CFP, GFP, YFP and TXred and fully motorized filter block
XYZ motorized stage with Piezo Z-axis Top Plate

Continued.....3

Imaging software for microscopy with modules for image analysis and morphology, full color support, overlay of multiple fluorescence images, analysis of image sequences, movie display, 3D reconstruction and visualization, and other options.

Objectives for fluorescent and DIC imaging:

- 10X, 20X, 40X objectives with DIC
- 100X oil objective with 1.45 NA
- 100X oil objective with 1.4 NA
- 63X oil immersion objective with 1.4 NA
- 63X water immersion objective to be quoted as optional.

Camera: EMCCD with following specifications:

- Quantum efficiency of >90% across the visible spectrum.
- Minimum 512 x 512 Pixel, 16 x 16 μm , Frame Transfer CCD with about 34 full frames/sec and up to about 748 sub frames/sec (ROI).
- Ability to thermoelectrically cool down to -85°C air cooled, and -100°C chilled liquid.

Light source: 120 W mercury short arc lamp.

Computer System: Vibration Isolation System to mount the microscope
Should be upgradable for 2D FRAP

Specifications of 2D FRAP to be upgradable (to be quoted as optional):

- 2D Multi-point FRAP / Photo-Activation system with galvanometer controlled real-time module for illumination of independent multiple points or multiple ROIs.
- Point size of laser spot: about 1 μm for 100X objective with >1.33 NA.
- Diode-Laser system 405 nm (60 mW laser power) including heat sink and control unit.
- Solid State laser system 488nm (50 mW laser power) including heat sink and control unit.
- Motorized single filter wheel with 6 Positions.
- Electromechanical shutter with 2mm aperture
- Microscope laser coupling
- Software module for fast stream acquisition with control of Z-axis piezo system or wavelength polychromator system and AOTF.

Installation and service:

1. Bidder should clearly specify the after sales service, cost for annual maintenance after expiration of warranty terms, and application support capabilities including laboratory training to researchers on regular basis.
2. Bidder should include the supply of appropriate online UPS system to support the complete system including light source, live cell chamber.
3. Bidder should provide all the pre-installation requirements to have the system installed in ideal room conditions.
4. Bidder should also provide a detailed list of users of the quoted system in India with contact details.
5. Bidder should provide 3 yrs warranty for all components including camera.

4. TENDER NO. IISER/PUR/576/10

INVERTED FULLY MOTORIZED FLUORESCENCE MICROSCOPE – 1 NO

SPECIFICATIONS

The microscope system should be state-of-the-art technology and modular in design suitable for Biological and materials research applications. The system should be capable of DIC, epifluorescence and brightfield imaging.

1. 6 position motorized fluorescence filter assembly with automatic filter identification device and 6 position motorized DIC nose piece elements.
2. Long working distance motorized condenser for brightfield, phase and DIC applications.
3. Fully motorized built-in z-focus drive with minimum of 0.10 nm step size.
4. Fluorescence filters for dapi, FITC, /GFP, cy3, cy5, texas red should be offered, should be capable of multichannel imaging. All filters should be narrow band with enhanced transmission.
5. Light source should be 120 W metal halide illumination system with intensity controlling option.
6. Motorized shutters in both the epifluorescence and transmitted lightpaths that are controlled both at the stand and remotely by the computer.
7. System should have multiple ports to add other camera devices.
8. Should be capable of both fixed and live cell imaging (DIC and Fluorescence) of highest quality. Should be equipped motorized turret with magnification lenses, autofocus arrangement.
9. Objectives:
High resolution objectives:
Long working distance 4X, 10X phase
20X multi immersion, DIC
Plan apo 40X (DIC, Oil),
Plan Apo 60/63X/1.3 NA ; oil and DIC,
Plan Apo 100X/1.4 NA, oil , DIC,
DIC sliders as required,
Condenser module with polarizers. All objectives should come with complete DIC accessories.

10. High resolution cooled CCD monochrome camera with minimum of -40 degree C cooling or better with at least 1280x1024 pixel and 16/12 bit colour range and should be controlled by the same software. Imaging with acquisition speed of minimum 10 frames/sec or higher. USB 2.0 universal plug & play connectivity with additional input/outputs, programs for controlling and sensing maximum number of external devices.
11. Imaging software which can do all motorized functions of microscope, shutters, scanning stage, image analysis features. Capability of the software to perform multichannel fluorescence, z-stack, time lapse, Z-stack-time lapse together should be clearly mentioned. The software should be able to provide a single window allowing all parameter changes. Image analysis feature should include object and point tracking capability for time-lapse images, image intensity measurement and comparison of multicolor images in 3 dimension showing intensity heights, 3-D image re-construction, producing average, sum and maximum projection image from the raw images (both single and multi-frame time-lapse images), ROI selection, making movies from multiple image frames etc. All these image analysis features including conversion of image bits, flexibility in file conversion of raw images (both single or multi-frame time-lapse images) to different file extensions such as tiffs, jpeg, imagej file extensions, adobe-photoshop compatibility, compatibility with metamorph software should be clearly mentioned. An off-line version with multiuser licence of the software should be provided.
12. Stages : Stage mounting option with 2 stages. One should be normal stage suitable for fixed-cell imaging purpose . Another mounting-stage with CO2 incubator fitted heating system. Heating should be Peltier controlled, is compatible with the motorized stage and all of its sample holders which is capable of +/- 0.1 degree temperature stability and which uses as in-house supply of 95% air/ 5% CO2 to maintain a humidified 5% CO2(+/- 0.1%) environment in the chamber. The stages should be equipped with universal sample holder /Inserts to hold 1" x 3" slides, 35 mm, 60 mm dishes.
13. Anti vibration table with air-damping mechanism must be provided with the system.
14. State-of-the-art control computer with high end processor:
Pentium Core 2 duo- E8400 or higher; RAM : minimum of 4 GB DDR2-667, minimum 500 GB Hard disk SATA II, DVD superMulti SATA + R/RW, Graphics card ATI Fire GL V5600 768 MB, Gigabyte Ethernet, USB 2.0, firewire, large high resolution 30" LCD TFT monitor or dual TFT monitors with 20" with a laserjet colour printer.
15. X-Y motorized scanning stage fully controllable by the software may be quoted as an optional.

Installation and service:

- 1) Bidder should clearly specify the after sales service, cost for annual maintenance after expiration of warranty terms, and application support capabilities including laboratory training to researchers on regular basis.
- 2) Bidder should include the supply of appropriate online UPS system to support the complete system including light source, live cell chamber.
- 3) Bidder should provide all the pre-installation requirements to have the system installed in ideal room conditions.

- 4) Bidder should also provide a detailed list of users of the quoted system in India with contact details.
- 5) Bidder should provide 3 yrs warranty for all components including camera.

SPECIAL CONDITIONS APPLICABLE TO ALL THE ABOVE FOUR TENDERS.

1. COMPLIANCE STATEMENT

Along with the technical details provide a tabular column indicating whether the equipment quoted by you meets the specifications by indicating 'YES' or 'NO'. If 'YES', support the claim by providing original brochures. Names of Institutes with contact person and telephone/ email where similar equipment supplied by you in India [Preferably south] shall be mentioned in the bid.

2. TWO – PART TENDER

PART I – TECHNICAL BID:

Consisting of all Technical details alongwith commercial terms and conditions.

PART II – PRICE BID:

Showing item-wise prices for the items mentioned in the Technical Bid. The technical bid and the Price bid should be in separate sealed and superscribed covers. Both these covers are to be put in a sealed bigger cover superscribing Tender No and due date. Technical bids will be opened first and after evaluation, price bids of only the shortlisted bidders will be opened.

3. RELOCATING THE EQUIPMENTS

These equipments are to be initially installed at IISER Transit Campus [CET] and later, when permanent campus of IISER is ready at Vithura [40 Km from Trivandrum], these equipments are to be relocated there. Prices quoted for the equipment shall be either inclusive of relocating the equipment or a separate quote shall be shown in the Price Bid for the same [dismantling, transporting, installation and demonstration at the new location].

**CONSULTANT
[PURCHASE & STORES]**

IISER – TVM
INSTRUCTIONS TO TENDERERS [INDIGENOUS].

1. Tenders should be sent in sealed envelopes superscribing the relevant tender no. and the due date of opening. Only one tender should be sent in each envelope.
2. Late tender and Delayed Tenders will not be considered under any circumstances.
3. Sales Tax and /or other duties/levies where legally levies and intended to be claimed should be distinctly shown separately in the tender.
4. (a). Your quotation should be valid for a minimum period of 60 days from the date of opening of the Tender. Quotation with firm prices will be preferred.
(b). Prices are required to be quoted according to the units indicated in the Invitation to Tender. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
5. (a) Preference will be given to those tenders offering supplies from ready stocks and on the basis of delivery at IISER site.
(b) Preference will also be given to those who agree our payment terms of within 30 days of receipt and acceptance of the item at our site.
6. (a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
(b) Samples, if called for, should be submitted free of all charges by the tenderer and the IISER shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to take back the samples at his own expense.
(c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
(d) **Specifications:** Stores offered should strictly conform to our specifications. Deviations, if any should be clearly indicated by the tenderer in their quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary along with the quotations. Test Certificates wherever necessary should be forwarded along with supplies. Whenever specifically mentioned by us the tenderer could suggest changes to specifications with appropriate reasons for the same.
7. IISER shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rates quoted.
8. Corrections, if any, in the Quotation must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quote d in words shall prevail.
9. The tenderer should mention the name of his bankers, Sales Tax Registration, PAN number etc in the tender.
10. The authority of the person signing the tender, if called for, should be produced.
11. The purchaser reserve the right to accept or reject the lowest or any other offer in whole or in part without assigning any reason.
12. IISER being a Govt of India Educational and Research Institute, is exempted from payment of Excise Duty and Customs Duty under Notification No. 51/96- Customs dated 23rd July 2009. Also, we can issue Form16 as per VAT Rules.
13. There is no EMD or Tender Cost.

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IISER-TVM
INSTRUCTION TO TENDERERS [IMPORTS]:

1. **PRICE:** The price quoted shall be firm. The terms of FOB/EXW/FCA/CIF/CIP etc shall be clearly mentioned.
2. **AGENT & AGENCY COMMISSION:** In case Tenderer is represented by any agent in India, their name and address shall be furnished. The amount of commission included in the price shall be clearly shown in the offer; which will be paid directly to the Indian Agents by purchaser in equivalent Indian Rupees. In case Indian agents existing and their agency commission is not shown in the Tender, reasons for the same shall be clearly mentioned in Tender. Details of Indian agent's statutory registration shall be stated. If Agency Commission is paid by Principals in foreign currency, the reasons for the same and exemption from Enforcement Directorate in India shall also be provided.
3. **LEAFLET/CATALOGUE:** Tenderer should furnish all necessary leaflet/catalogue etc., of the stores offered by him to enable the Purchaser to evaluate his offer correctly.
4. **MODE OF DESPATCH:** Tenderer shall indicate the mode of dispatch (*i.e.*, Sea/Air-freight/Parcel Post, etc.) depending upon the normal mode of dispatch adopted by him for the type of stores offered for consideration of the Purchaser.
5. **COUNTRY OF ORIGIN:** Tenderer shall indicate in his offer the country of origin of goods offered and the name and address of the manufacture.
6. **INSURANCE:** If insurance of the goods is felt necessary, the same shall be advised by the Tenderer in the offer.
7. **DELIVERY/SHIPMENT:** The time for and date of delivery quoted shall be reasonable/realistic and shall strictly be adhered to in case of placing order on the Tenderer.
8. **MODE AND TERMS OF PAYMENT:** Payment in full (excluding the amount of Agency Commission included in the price payable directly by the Purchaser to the Indian Agents in Indian Rupees) will be made immediately on presentation of the prescribed documents against SIGHT DRAFT or LETTER OF CREDIT.
9. **WARRANTY:** Period of warranty and conditions shall be clearly mentioned in the Tender.
10. **GENERAL:** The Tenderer shall also be complied with the following:
 - a. Mention your Banker's name and address.
 - b. Show approximate net and gross weight and dimensions of packages/cases.
 - c. Furnish list of recommended spares for satisfactory operation for a minimum period of one year if the quote is for Plant & Machinery, Equipments etc.
 - d. Details of any technical service, if required for erection assembly, commissioning and demonstration.
 - e. Conform that the prices quoted are inclusive of all taxes, levies, duties arising in the tenderer's country.
 - f. The offer is valid for a minimum period of 90 days from the due date of opening of the tender.
 - g. Samples, if called for, will be sent free of all charges.
 - h. Late tenders and Delayed will not be considered.
 - i. Offers made by Indian Agents on behalf of their Principals, should be supported by the Proforma Invoice of their Principals.
 - j. The authority of person signing the tender, if called for, shall be produced.
 - k. The purchaser reserves the right to accept or reject the lowest or any other offer in whole or in part without assigning any reason.

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