SCHOOL OF BIOLOGICAL SCIENCES

Indian Institute of Technology Delhi

September 12, 2011

NIQ for Fluorescence Activated Cell Sorter (FACS)

PLEASE NOTE THAT THE DATE OF SUBMISSION HAS BEEN EXTENDED FOR TWO WEEKS (10:00 am, October 28, 2011)

1. The bench top Flow Cytometer should be equipped with minimum following four air cooled solid state lasers.
   I) **351/375 nm (5-15 mW or higher)**
   II) **488 nm (18-25mW or higher)**
   III) **561 nm (40-50mW or higher)**
   IV) **633/635 nm (15-20 mW or higher)**
   In addition to the above following are desirable:
   i) 405 nm (20-30mW or higher)
   ii) 445 nm (13-18mW or higher)

2. Should have the capability of minimum 12 parameters (9 fluorescence plus forward and side scatter, time kinetics) measurements simultaneously with future upgradeability to perform upto 16 fluorescence parameters or higher.
3. The system should be able to provide the usage of upto at least four lasers at a time for simultaneous detection.
4. The system should have digital compensation with online as well as post-acquisition auto compensation features.
5. Multiple nozzles at least from 70 to 130 microns should be provided. Insertion/ removal of a nozzle should not involve realigning of optics, all the lasers & fluidic system.
6. The system should have built in sorter capable of 2-way and 4-way sorting with individual stream deflection controls.
7. System should be able to acquire approx 70,000 events or cells/second or better and sort up to at least 50,000 events or cells /sec or more without effecting purity of > 98%.
8. The system must have multiwell sorting ability.
9. The sample should have adjustable sample input agitation and temperature control.
10. The system should have the option to adjust the sheath pressure values (5-75psi) for the purpose of sorting.

11. The system should provide flexibility to use samples in range of sources including at least 0.5ml to 15 ml tubes range.
12. The system should be able to perform cytometric bead based assays for analysis of various biomolecules.
13. User friendly software, capable of establishing baseline, setting of system performance and adjustability for instrument variability, thereby automating instrument set-up leading to consistent and reliable results should be provided with the system. Suitable software for acquisition, data analysis and various applications should be provided.
14. Workstation for online and offline usage should include PC with the following features:
    a. Intel Pentium Dual Core or higher version processor.
    b. Memory 8 GB or more
    c. 500 GB or higher SATA hard disk
    d. 16 xDVDRW/CDROM combo drive- Four nos
       (one acquisition system and three offline analysis)
    e. Genuine Windows 7.0; 512 MB or higher Graphics memory
    f. Colour printer Laser (two in number) with very good resolution with one additional cartiridge for each for future replacement
    g. 27" LCD Monitor
    h. Network card
    i. Scanner of high resolution (one no.)
    j. 640 GB HDD (Portable) for data storage and back-up- Two in number.
15. Four PC workstations should be provided for offline analysis
16. Online UPS (5KVA) with 30 minutes back up for the system should be provided along with the other room accessories including fluidic cart for sheath fluid, waste collection, cleaning containers, vibration free tables.
17. Cytometer should be equipped with the bio-hazard containment system.
18. The company should provide 200 L of sheath fluid and at least 1000 sample tubes apart from regular start up reagents such as QC reagents, calibration reagents, cleaning and rinsing solution.
19. The kits (at least 150 tests each) for apoptosis, DNA analyses and cytokines based bead array kit.
20. It is desirable that a high end epifluorescence inverted microscope with digital imaging, softwares, a computer for post-image acquisition analysis and all other appropriate accessories required for pre and post FACS -cell analysis under the microscope be provided.
21. The company shall provide a trained operator for the initial two years after installation.
22. The company should have training centres in India.

23. The company should have already at least five installations in India and minimum 200 international publications in regard to the machine.
24. The company should provide onsite training and support. It should provide technical support, software use training and regular updation of software.
25. The system should be supplied with a five year comprehensive warranty from the date of installation.

Terms and conditions:

1. Letter from manufacturer specifically to quotation for this tender is to be attached for authenticity of dealership/agency and dealer should be authorized service provider.
2. Vendor should get a fresh certificate directly from their product principle's clearly mentioning about on site comprehensive warranty for five years of the systems to be delivered.
3. Special discount/rebate wherever admissible keeping in view of that the supplies is being made for educational purpose in respect of Public Institution of national importance may please be indicated.
4. Vendor should attach the relevant product brochure/leaflet for the model quoted.
5. Validity of the quotation should be at least three months.
6. Vendors will do the installation and demonstration of the machine without any extra cost at IIT Delhi premises.
7. Taxes, Terms and Conditions should be clearly mentioned.
8. In case the items are proprietary products of the company, a proprietary item certificate stating the same may be provided.
9. Specifications form should be similar to the given specification sheet.
10. A compliance statement for the specifications asked for should be attached.
11. Clearly mention payment terms and conditions. (No advance payment is encouraged by IIT Delhi).
12. Mention AMC charges separately beyond standard warranty and free service period.

The institute/Purchase Committee has the right to accept or reject any bid or all quotations without assigning any reasons whatsoever.

Sealed quotations in separate envelopes of Technical and Commercial bids kept in one sealed outer envelope (super-scribed "Quotation for Fluorescence Activated Cell Sorter") should be addressed to **Dr. Archana Chugh, School of Biological Sciences, IIT-Delhi, Hauz Khas, New Delhi 110016** and should **reach the School of Biological Sciences Office, IIT-Delhi by 17: 30 pm, October 12, 2011.**