e-Procurement Cell

Indian Institute of Engineering Science and Technology, Shibpur

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(An institute of National Importance under MHRD, Govt. of India)

Dtd.24/07/2020

CORRIGENDUM

Tender reference no: **e-Proc/DRC_15072020/ TTFC_IIEST/417**
Tender Id: **2020_IIEST_571463_1**

Kindly note:

Based on the pre-bid meeting held on 22nd July at 3.00 pm, some modifications are made in the specification of the instrument 'Flow Cytometer'.

THE SPECIFICATIONS FOR THE TABLE TOP FLOW CYTOMETER (ITEM NO. 1) ARE AS FOLLOWS:

Table Top Flow Cytometer

1. Excitation Optics:
   - (a) Fixed optical assembly with one or more lasers (488 nm Blue laser is must to be supplied) having 50mW or more power. System must have hardware for holding 4 lasers at a time.
   - (b) Optional 640 nm laser
2. Emission Optics:
   - a) High quality quartz flow cell, gel coupled to (1.2 or higher NA) lens for optimal collection efficiency
   - b) Forward scatter detection: suitable Photomultiplier, PMT/APD detector with a 488 bandpass filter
   - c) Side scatter: Photomultiplier, (PMT)/APD with a 488 bandpass filter
   - d) Must have PMTs/APDs for fluorescence detection for achieving best resolution even for dimly stained population
   - e) User adjustable PMT voltage/gain control for optimization of signals
   - f) Optical filters should be user changeable
3. Performance:
   - a) Fluorescence Resolution: CV <3% for propidium iodide (PI)-stained chicken erythrocyte nuclei (CEN) at all flow rates
   - b) Minimum particle size: 0.5 µm or better on side scatter

d) Forward and side scatter resolution: Optimized to resolve lymphocytes, monocytes, and granulocytes in lysed whole blood

e) Simultaneous measurement of four or more fluorescence (colours) parameters in addition to forward and side scatter

f) Quoted model/system must be on-site upgradeable to hold four or more spatially separated lasers and perform fourteen or more fluorescence (colours) simultaneously.

4. Fluidics:

a) Latest technology coupled with hydrodynamic focusing to ensure reproducible data quality at high sample rates.

b) Sample flow rates should be over a wide range. (sample flow rate range must be clearly specified)

c) System should have ability to give accurate absolute cell counts without the use of reference counting-beads

d) System should have quartz flow cell cuvette to minimize clogging issues.

e) System should use small amounts of sheath fluid in normal usage, helping to minimize fluid expense and waste disposal costs. The amount of fluid consumed in day to day operation should be specified.

f) System should have manual loading for 0.5 ml/1.5 ml tubes.

g) Sample analysis should be possible with running tubes, 96 or 384 well plates with individual sample mixing and easy transitions. Well plates of any manufacturer should be compatible (open-ended) with the machine and not restricted to any one well plate manufacturer.

5. Data Management & Software:

a) System software have automatic compensation feature and be capable of compensating data in real time and post-acquisition

b) System software should be capable of establishing base line settings of system performance: Automated baseline and performance test with Levy-Jennings plots

c) System software should include multiple plot types including dot plots, density plots, precedence density plots, and histogram plots that include linear, logarithmic, hyperlog, and logicle display.

g) All maintenance functions, including unclog, de-bubble, and system decontamination, should be fully automated in the software, minimizing hands-on time.

h) Should be capable of acquiring large number of events/file (10 million events per fcs file or more). Details of maximum number of events in single file should be provided.

i) System should preferably have software driven sample recovery feature.

j) Operating system: Windows™ 7, 64 bit, Processor: Intel Core™ i7, RAM: 32 GB, Branded Computer: Desktop, Hard drive: 2TB or more, Monitor: 23-inch flat panel (1,920 x 1,200 resolution) and suitable UPS, as per requirement.

k) FCS format: FCS 3.1

6. Customer training should be provided at the customer site by a certified technical scientist focusing on basic operation maintenance troubleshooting and analysis.

7. Vendor should offer technical support and field applications/upgradation/sales/service support to answer technical questions, help review data, and give recommendations on how to troubleshoot results encountered with flow cytometry experiments.

8. Warranty: Three year comprehensive warranty.

9. Multi-user software.

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