Tender Notification for the Procurement of a "Live Cell Metabolic Flux Analyzer" at the Indian Institute of Science, Bangalore

(Last date for submission: 05/12/2018)

Ref: BSSE/BBI2/18-19

Kindly send your best quotation for a Live Cell Metabolic Flux Analyzer with the following technical specifications on C.I.F. Bangalore basis. Your quotation should clearly indicate the terms of delivery, delivery schedule, estimated delivery date, and payment terms. The tender should be submitted in two separate sealed envelopes - one containing the technical bid and the other containing the commercial bid, both of which should reach us, duly signed on or before 1700 hours on December 5, 2018.

The bids should be addressed to:
The Chair
Centre for Biosystems Science and Engineering
Indian Institute of Science
Bangalore – 560 012, INDIA

The sealed bids should be sent to:
The Chair
Centre for Biosystems Science and Engineering
Indian Institute of Science
Bangalore – 560 012, INDIA
Phone: + 91 80 22932624
E.mail: chair.bsse@iisc.ac.in

Please enclose a compliance statement along with the technical bid.

Technical Specifications for Live Cell Metabolic Flux Analyzer

We are seeking to procure a Live Cell Metabolic Flux Analyzer, which measures bioenergetics of live mammalian and bacterial cells. The system should be equipped with latest version of hardware and software.

The following specifications for the system was finalized for the tendering process:

1. Should be able to measures oxygen consumption rate (OCR) and extracellular acidification rate (ECAR) of live cells simultaneously. Detection capability for dual analyte i.e. O_2/H^+. Cells analyzed should be recovered viable post-analysis

2. Should be able to work with Minimum 8 well and upto 24 well tissue culture microplates. The measurements should be completely non-invasive and should work without the addition of reporters, dyes, or labels.

3. Should be able to take readings at short intervals of time (15 sec or less), over a longer period of time (at least 30 min). It should have capacity to perform repetitive kinetic measurements.

4. Should have a minimum usage of 10,000 upto 80,000 cells per well. Adherent cells should be measured without requiring trypsinization. Should be able to take measurements in suspended cells with minimum adherence.
5. Should have an option of atleast four ports for adding substrates/compounds automatically without taking the plate
6. Should be compact bench-top instrument with a temperature controlled (37°C +/-0.5°C) measurement chamber.
7. Screen and a separate computer monitor to analyze data with software to measure OCR, ECAR and CDPR in a single 2D chart. Data display should show OCR and ECAR simultaneously.
8. Instrument should be sensitive to measure pH: 0.5 mpH and Oxygen: 0.67 mm (Clark electrode is ~1.0mm).
9. Excitation and Emission requirements: A source for monochromatic excitation (LED). Should have different absorption and emission peak.
10. Sensor : Oxygen = Absorption (Green, 530 nm); Emission (Red; 650 nm).
11. pH= Absorption (blue; 470 nm); Emission (green; 530 nm)
12. An UPS power back-up for uninterrupted functioning of machine should be supplied with the instrument.
13. System should come with integrated computer, data acquisition and display. User friendly excel based software should be supplied. Multiple License for the analysis software should be provided.
14. Two nos. offline computer with UPS and analysis software of post-acquisition analysis (Offline computer (minimum desired specifications) – i5/i7 processor; 8 GB RAM; 1GB graphics card; 2 TB HDD; 21 inch LED monitor; wireless KB mouse); ethernet port.
15. Software modules to be included (for both online and offline analysis). The software should allow analysis on Microsoft excel or other statistical programs.
16. Startup consumables for assay of Glycolysis, Intracellular and extracellular oxygen, Cellular energetics, Fatty acid oxidation, mitochondrial metabolism, Base Medium, and carrier tray.
17. The system should be able to calibrate the sensors automatically.

Terms and Conditions

18. The vendor is responsible for the installation of the system at the Institute.

19. The price quotation should include the cost of installation and training of users to be conducted by technical and application expert. Training by technical and application expert needs to be conducted annually for first 5 years.

20. The equipment must be covered under full comprehensive maintenance contract for the 5 years, after successful installation and training.

21. The system downtime must be limited to 24-48 hours from the time of reporting.

22. Annual Maintenance Contract (AMC) charges for three years may be quoted from the date of expiry of initial 5 years CMC.

23. The vendor should have a track record of having previously supplied a minimum of 1-2 Flux Analyzer systems in India. Details of these installations must be provided in technical bid.

24. The vendor should have qualified technical service personnel for the equipment based in India.

25. The lead-time for the delivery of the equipment should not be more than 10 months from the date of receipt of our purchase order.

26. The indenter reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split-up the requirements or relax any or all of the above conditions without assigning any reason is reserved.

27. Payment will be through Letter of Credit (LOC), 80% on shipment and 20% will be upon successful installation and training of users.

Attn: Dr. Annapoorni Rangarajan
Professor
Dept of MRDG/Centre for BSSE
New Biological Sciences Building
Email: anu@iisc.ac.in

(on behalf of purchase committee)