

**Open Tender Notification for the procurement of “Real-time Cell Death and Cell Survival Analysis System” at the Indian Institute of Science, Bangalore**

**(Last date of submission of tenders: 03-February-2021)**

**(TENDER FROM DOMESTIC VENDORS)**

Date: 19.01.2021

Dear Sir/Madam:

Please send your quotation valid for 90 days for the supply of equipment described below. Your quotation should clearly indicate the terms and conditions of the quotations, delivery, delivery schedule, entry tax, payment terms, warranty coverage etc. The tender should be submitted in two separate sealed envelopes – one containing the “Technical bid” and other containing the “Commercial bid”, both of which should be duly signed and must reach the undersigned on or before 17:00 hours 03-February-2021.

**Chair**

**Department of Biochemistry**

**Division of Biological Sciences**

**Indian Institute of Science**

**Bangalore-560012**

**Karnataka, India**

**Real-time Cell Death and Cell Survival Analysis System**

**Specifications**

1. The automated image acquisition and analysis system that must operate and capture images from within a standard tissue culture CO<sub>2</sub> incubator so that precise control of temperature, humidity and other environmental factors such as CO<sub>2</sub> and oxygen can be maintained.
2. The optics must move to the areas being imaged. The cell culture vessels must remain stationary during this imaging process. Stationary optics and stage driven vessel movement are not acceptable.
3. The system must be capable of simultaneously imaging and analyzing any mixture of 6 assay plates that conform to the ANSI/SLAS standard for assay plates. These include 384-well microplates, 96-well microplates, 48-well plates, 24-well plates, 12-well plates, and 6-well plates. Each assay plate must be able to run a different application, accommodating six different assay applications in parallel.
4. The system must accommodate the following but must not be limited to the following plastic tissue culture vessels: 92.6 cm<sup>2</sup> Roboflask, 500 cm<sup>2</sup> Tripleflask, 84 cm<sup>2</sup> Autoflask, 225 cm<sup>2</sup> flasks, 185 cm<sup>2</sup> flasks, 182 cm<sup>2</sup> flasks, 175 cm<sup>2</sup> flasks, 162 cm<sup>2</sup> flasks, 150 cm<sup>2</sup> flasks, 75 cm<sup>2</sup> flasks, 25 cm<sup>2</sup> flasks, 35mm dishes, 60 mm dishes, 100mm dishes, 150mm dishes, chambered slides and microslides.
5. The system must possess fully automated, hands-free operation for periods exceeding 25 days and must be designed to autofocus and auto expose without intervention during this time period. The automated imaging system must return to the same location in a repeated fashion without error over this same time period.
6. The software must be able to mask, quantify and generate time-based curves based on fluorescence metrics including but not limited to: Fluorescent Count, Fluorescent Average Area, Fluorescent Total Area, Fluorescent Confluence, Fluorescent Mean Intensity, Fluorescent Average Integrated Intensity, Fluorescent Total Integrated Intensity, and Fluorescent Eccentricity.
7. The software must be capable of generating label free, time based, growth curves for cells in 2D and spheroid cultures. To work with suspension culture, cell by cell analysis software module should be supplied along with system.

8. Software must be capable of performing cell migration, Invasion & as well as capable to study neurite growth. To run these applications separate software modules should be supplied along with the instrument.
9. Control of the system must be distributed over a network and the client software must be able to elicit control of the automated image acquisition and analysis system from any networked computer. Unlimited licensees of the client software must be available. The client software must not operate using a client computer license key or dongle.
10. The system must perform whole-well imaging for selected vessels and include software for image navigation and panning.
11. The system must have high-definition phase contrast optics and two fluorescent wavelengths (red: ex565-605nm, em625-705nm; green: ex440-480nm, em504-544nm). The fluorescence optics must be capable of reading YoPro-3, mKate2, GFP, RFP, Alexa 488, intercalating DNA dyes, fluorescein or fluorescein derivatives.
12. The high-definition optics of the system must image standard 384 well tissue culture plates without any sidewall or meniscus effects.
13. The system must have the following objectives on an automated turret: 4x PLAN, 10x PLAN FLUOR, and 20x PLAN FLUOR.
14. The system must have a CMOS detector with low read noise and detector with linear response to changes in fluorescence.
15. Data storage capacity on the system must consist of at least 16.4 Terabytes in the form of a RAID Array design with 48 GB RAM and be expandable to 49.1 Terabytes
16. The instrument must have a fluorescence calibration system and it should be supplied along with calibration accessories like calibration trays, calibration slides and calibration fluorescence fluid.
17. The calibration system also must allow for comparison of intensity values for images that are captured with different objectives and at different acquisition times.
18. The instrument must be supplied along with the startup and accessory kit (from the same manufacturer) to establish cell death, survival and endocytosis measurements.
19. The instrument must have minimum of 2 years of service warranty. If any issues related to the instrument and software need to be addressed/replaced within 14 days of the complaint registration.

20. Controller weight should be approximately 41 lbs

### **Training and Warranty**

1. On-site installation and training
2. Minimum 2 years complete system warranty

The above-mentioned technical specifications are highly desirable. However, lower technical specifications may be considered if the above-mentioned specifications are found to be unsuitable in financial terms. The Institute reserves the right to go for lower specifications taking into considerations its financial constraints and technical preferences.

### **Terms and Conditions:**

1. The quotations should be submitted in two bids system; i.e., Technical bid, and Commercial bid.

a. The technical bid must include all details of technical specifications of the instrument along with commercial terms and conditions masking only the price component. Bill of materials, brochures, technical datasheets, and any other document may be enclosed to help the evaluation of the technical bid. Please also include warranty terms and any other information on upgradation terms in the technical bid.

b. The commercial bid must include the price of the instrument in Indian/Foreign currency indicating break up of:

I. For goods:

i. Price (CIF, Bangalore). Applicable Custom Duty will be borne by the Institute.

ii. Installation, commissioning and training charges, including any incidental expenses, if any

iii. Agency commission charges, if any

iv. Provide certificates for country origin of manufacturing for each line item

II. Price of every line item in the commercial bid should be quoted along with the total quoted price for the instrument to be operational (fixed and ready to use) in our facility

c. Both the Technical and Commercial bid should be put in separate sealed envelopes, and put together in another cover stating “Real-time Cell Death and Cell Survival Analysis System” and should reach us on or before 17:00 hours 03-Feb-2021

2. The vendor should have a good track record of having previously supplied Real-time Cell Death and Cell Survival Analysis System in India or abroad (please furnish details)
3. The vendor should have qualified technical service personnel based in Bangalore capable of servicing the equipment
4. The payment will be through a letter of credit
5. The lead time for the delivery of the equipment should not be more than three months from the date of receipt of purchase order or two months from the date of receipt of Letter of Credit details (whichever is earlier)
6. The validity period of the quotation should be 90 days
7. Import code of the items should be indicated
8. If the goods are found to be defective, they have to be replaced or rectified at the cost of the supplier within 30 days from the date of receipt of written communication from us. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended
9. The purchaser reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time period to award of construct without thereby incurring any liability of the affected bidder or bidders