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Enquiry No.: IICB/PUR/2025-26/599/616/04 **Date: 11.07.25**

Corrigendum / Addendum to Tender Document

It is hereby informed that the tender for supply, installation testing and commissioning of Live Cell Imager And Analyzer has been published in NIC CPP Portal (https://etenders.gov.in/eprocure/app) vide tender ID 2025_CSIR_239041_1. . In this regard a revised Technical Specification (Chapter 4) of the Tender Document is enclosed herewith (Annexure A) for information and downloading. The copy of the same has also been uploaded in CSIR-IICB website.

All the prospective bidders are hereby requested to kindly see the corrigendum notice dated 11.07.25 and submit their bid/ offer/ quotation accordingly.

All other terms and conditions of the said tender notification will remain unchanged.

11/07/25

Section Officer (Stores & Purchase)
For & On Behalf of CSIR

Annexure A

Specification for Live Cell imager and analyzer.

Application.

1. The fully automated tabletop true high content confocal imaging microscope system should be optimized for a wide range of cell-based assays for both live cell imaging and fixed cell assays. It should be able to support the following assays (the list is not exhaustive) - cell growth, cell death, cell differentiation and migration, expression and localization of fluorescent tagged proteins inside cell, cancer metastasis, Neurite formation experiments, receptor binding & internalization studies, 3-D spheroid studies, live organism studies (zebra fish embryo / Drosophila) etc. The instrument should be compatible for the experiments where time lapse imaging is required.
2. The system should be modular, highly configurable and field upgradable so that it can be customized to the end users' applications and must be flexible enough to meet the growing demands of tomorrow's high content researchers.

Hardware.

3. The system should be able to perform the experiments in bright field and fluorescence imaging modalities in wide field and confocal mode. The user should be able to easily switch between these detection modules as per the requirement.
4. The instrument should not require a dark room for its operations in fluorescence imaging.
5. The system should have lenses of 4x or 5x, 10x, 20x, 40x & 60x or 63x for fluorescence (wide field / confocal) as well as bright field or equivalent for unstained samples experiments. The objectives should be long working distance objectives which are suitable for thick bottom cell culture plates.
6. The system should have fully automated 4 or more position automated turret. The user should be able to change the objectives themselves without needing a service engineer's visit.
7. The system should be able to accommodate combination of air and automated water immersion objectives. Water Immersion objectives for higher magnification of 40X and 60/63x should be provided with the system with automated water pump kit.
8. The system should employ a single fixed true confocal spinning disk optics with inbuilt high speed spinning disc/s with suitable pinhole. The pinhole size should be optimized at 50µm to 60µm size for barring out of focus light & obtaining the best resolution.
9. The system should have a sensitive large-format 16-bit sCMOS Camera with a resolution of 2000x2000 pixels or better. The pixel size should be 6.5 µm or better.
10. The excitation source should have five (or more) channel high powered fast switching LEDs for Fluorescence excitation. The system should have the flexibility to accommodate multiple fluorescence channel of excitation for switching between different fluorophores. The system should come with at least four emission filters: DAPI or equivalent (430 - 460 nm), FITC or equivalent (500 - 550 nm), TRITC or equivalent (570 – 620 nm), cy5 or equivalent (655 - 700 nm).
11. The system should be compatible with slides (with adaptors) & variable plate formats such as 6, 12, 24, 48, 96, 384 & 1536 well formats. All the applications and all the functionalities should be possible in all well formats.
12. The system should have a high speed, high resolution scanning stage, at least 50 nm resolution to achieve high accuracy and precision in X, Y & Z axis.
13. The system should have hardware (laser based) autofocusing with very high XY precision and near zero Z drift.

14. Factory supplied 2 PCs should be provided that includes:
    One control Computer and one Image Analysis System:
    Processor: A minimum W5-2465x processor or 10 core processor with base frequency of 3 GHz or better, turbo frequency of 4.5 GHz or better.
    RAM: 128 GB minimum.
    HDD: 10TB useable storage with future expandable option
    Graphics card: NVIDIA A4000, 16GB or better
    Monitor: 34 inch flat screen
    OS: Microsoft® Windows® 10 IoT Enterprise 2021 LTSC, 64bit, OS runs on separate SSD drive (1TB, not used for measurement storage)
    Network interface: 10 Gigabit Ethernet
    Microsoft SQL Server Standard incl. 5 Client Access Licenses (CAL) or computer based dedicated data manager.
15. The system should have environmental control with an inbuilt module for live cell imaging applications. Temperature control: 37°C to 42°C (± 1°C) & CO2 control: 1-10 % +/- 0.5%. Filled CO2 cylinder and regulator should be provided at the time of the installation.
16. The system should be compatible for future up gradations for applications such as with a robotic interface & liquid handling system.

Software.

17. The system should be controlled by a single software which should be easy-to use, with an intuitive workflow-based user interface and image analysis techniques for processing large volumes of data. The software should have AI and machine learning based analysis capability.
18. The software should enable the user for visualization of cell samples such as spheroids as XYZ view or as 3D view along with interactive 3D view such as rotating, zooming or shifting the 3D sample for detailed exploration. The system software should enable 3D segmentation and 3D analysis of cell samples. This includes 3D properties such as volumes, 3D morphology, 3D intensity and 3D position properties as well as 3D textures.
19. Software should have network compatibility for the transfer of image files and experiment data files between an office workstation and the imaging instrument.
20. Perpetual license copies – minimum 2 Licenses, multiuser with free regular updates. The details for the 2 software licenses covering complete image acquisition & analysis applications should be quoted.
21. Software should be able to perform applications analysis like: imaging & analysis of fixed cell fluorescence imaging, 3D spheroids, cell growth, cell death, cell differentiation and migration; viral or bacterial invasion, cancer metastasis, chemotaxis, drug toxicity, multi wavelength cell sorting, neurite outgrowth, nuclear translocation analysis, protein – protein interaction-based assays, stem cell studies & homogeneous binding assays etc. The software should be capable to perform image stitching.
22. The user should be able to co-register images from bright field and fluorescence modes. It should allow the user to create movie exports from both, the XYZ and 3D view in various file formats – wmv, avi, mpeg2, png file series etc.
23. The system software should have ready-to-go protocols / templates available such as proliferation, autophagy, migration etc. Features for developing customized analysis should be provided in the software for any non-standard applications.

24. System software should include Intelligent acquisition modules for faster scanning of plates by using software and hardware pieces to scan and rescan images at low and high magnification for specific areas of well/ cells with precision.

Other information.

25. Suitable online UPS (minimum 3 KVa) with set of batteries to have a minimum back up time of 30 minutes should be provided for the whole system.
26. Three years complete and comprehensive warranty on the entire system (including LEDs, Detector/Camera, PC etc).
27. Vendor should arrange hands on demonstration and training to be imparted to ten persons for 3 days.