



Running Contract Details	
Equipment Name	Confocal Microscope (High Resolution Imaging Station)
Running Contract Valid Till	14-02-2021
Tender Ref No	KMSCL/EP/T304/1282/2018(R)
Tendered Quantity	15
Supplier Name	M/s Invitrogen BioServices India Pvt Ltd
GST No	29AABCI3134K1ZJ
Installation & Delivery Period	8 Week(s)
Up-time / PM vist	95% & 4 Visits per year
Warranty period	3 Years

Supplier`s Details		
Address	Contact Details	
Plot No-4 2nd Floor 2B Tata Xylem - Devasandra Industrial area Mahadevapura Post - Whitefield Road Bangalore â€™ 560 048	Contact Person	Shwetha G N
	Phone	08067445561
	Mobile No	9740389711
	Email	santosh.kumar@thermofisher.com,shwetha.n@thermofisher.com

Item-wise Price Details				
#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	Confocal Microscope (High Resolution Imaging Station) <i>Model & Make : CELLISIGHT CX7 HCA + STORE 1 EA Cat #CX7B1112</i>	10934352 Incl.GST :18%	765404.64	11699756.64
2	Server and computer as per specifications	118000 Incl.GST :18%	8260	126260
3	UPS	47200 Incl.GST :18%	3304	50504
		11099552	776968.64	11876520.64

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Rate	4 th Year	5 th Year	6 th Year	7 th Year	8 th Year	9 th Year	10 th Year
Confocal Microscope (High Resolution Imaging Station)							
Labour	3,96,000.00	3,96,000.00	3,96,000.00	3,96,000.00	3,96,000.00	3,96,000.00	3,96,000.00

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Comprehensive	5,54,400.00	5,54,400.00	5,54,400.00	5,54,400.00	5,54,400.00	5,54,400.00	5,54,400.00

Other terms & conditions

1. The supplier shall execute an agreement with the purchaser as per tender conditions (agreement format is given in the tender document).
2. The supplier shall submit performance security amounting to 5% of the value of the supply order.
3. The labour & comprehensive charges of equipment after the completion of warranty period is finalized by KMSCL as mentioned above.
4. Since discount rate is not applicable for equipment under Running Contract of KMSCL, purchase/supply order can be issued directly to supplier at the given rate with tax & other charges (exclusive of KMSCL service charges).
5. If purchase/supply order is issued directly to the supplier, KMSCL service charge need not be paid. But the copy of the said order may be forwarded to KMSCL for information.

Technical Specification

Equipment :Confocal Microscope (High Resolution Imaging Station)

An advanced, fully automated high-content confocal imaging microscope system with the following system configuration should be offered. The system should be a fully automated High content imaging system capable of performing in Brightfield, Widefield, Confocal and Digital Phase Contrast imaging modalities. The user should be able to easily switch between these detection modules as per the requirement. The instrument should not require a dark room for its operations in fluorescence imaging. The vendor should supply the entire system from a single source with all necessary accessories and complete system integration of hardware and software components for ideal integration and functionality. The vendor should be responsible for the complete system installation, functioning and maintenance.

Required specifications:

1. High resolution CMOS(16 bit or more) sensor with large field of view of at least 2000x2000 pixels or better and with high quantum efficacy (? 70%). The pixel size should be 6.5 ?m or better.
2. System should have both Laser-based autofocusing and image based software autofocus algorithms / hardware based autofocusing.
3. The choices of objectives should be from 5X to 60X magnification. The system should have long working distance 10X, 20X & 40X air objectives along with a high NA (above 1) 63X water immersion(optional) objective.
4. Should have minimum 5 wavelength illumination with at least 5 Color dichroic and emission filter covering from UV to near IR spectral range or minimum four diode lasers of wavelengths 405nm, 488nm, 556nm / 561nm and 635nm /640nm.
5. Plate formats: Compatible with SBS standard microplates (6, 24, 96, 384 &1536 well) and user-defined formats and slides (in slide holder)
6. Image analysis software should have predesigned assays for common assays for imaging and analysis like receptor internalization assays image segmentation, background correction, spot detection, colocalization, multi parameter cytotoxicity, neuronal profiling, cell cycle, tube formation , cell motility measurements, toxicity in small organisms or organoids, dot measurements in the nucleus and cytoplasm ROI analysis tools etc. for ease of setting up assay protocols along with ability to build custom-designed assays for image

acquisition and analysis setup.

7. The system should have a high speed, high resolution linear drive scanning stage, 50nm resolution, 1µm repeatability, z-stage resolution 50nm.
8. The system should allow upgradability to employ true confocal optics with a multi pinhole Nipkow spinning disk / laser point scanning or computational clearing based high resolution imaging.
9. The system should be capable of upgradation to environmental control modules for live cell imaging applications. Temperature control: 37°C to 42°C (± 1°C) & CO2 control: 1-10 % +/- 0.5%.
10. The system should have a dedicated laser /LED based auto-focus (solid state-above 770nm).
11. The system should offer 6 or more position emission filters disk which can be user changeable.
12. Should have imaging and analysis simultaneously (on the fly analysis)

Factory recommended branded (HP / Dell) PC should be provided that includes a relational image database that is driven by a powerful Windows 10 64bit server configured with two Intel Xeon six-core processors, 32GB RAM, ~2TB usable storage space, and visualized on a 30" TFT display. Mac book pro with latest OS , intel i5, 16GB RAM, 512GB HDD for offline analysis.

13. Compatible for future automation up gradations for applications such as with a robotic interface & liquid handling systems.
14. 3KVA online UPS should be supplied
15. The bidder should have minimum 3 installations in the country preferable in Government institutes with detailed list of users along with contact details.
16. Bidder should have a training facility in the country and specify the after sales service and application support capabilities.

17. Software-

Image Acquisition & Analysis:

- a) The system should be able to perform applications like fixed cell fluorescence imaging, 3D spheroids, cell growth, cell death, cell differentiation, and migration; viral or bacterial invasion, cancer metastasis, chemotaxis, drug toxicity, protein – protein interaction based assays, FRET based applications, Stem cell studies & Homogeneous Binding Assays.
- b) The system should be controlled by software which should be easy-to use, with an intuitive workflow-based user interface and image analysis techniques for processing large volumes of data.
- c) The user should be able to co register images from Bright field and fluorescence modes.
- d) The system should be able to export plate data automatically to other data management software for image storage and analysis.
- e) Software should have network compatibility and transfer of image files and experiment data files between an office workstation and the imaging instrument, further enabling user access within a multi-user environment.
- f) Software should have the feature like real-time image analysis for every application, enabling useful on-line quality control within screening programs.
- g) Software should export results automatically or in batches into Image Data Storage and Analysis system to access, re-analyze, store, and share the image data.
- h) Software should be very, easy to use, consists of modular building blocks each containing powerful algorithms for implementing ready-made applications or for development of new, unique assays.

i) System software should have built in algorithms for quantification of changes based on morphological changes. These should be in the form of changes in Symmetry, Density changes, changes in shape, Axis of symmetries and Changes around Radii.

j) Software should offer optional machine learning / equivalent capabilities that enable the software to recognize different cell populations or regions in the same way that you do. Based on advanced proprietary machine-learning technology, software will then set parameters for optimal image segmentation and cell classification.

k) System software should include 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.

18. User demonstration with user sample has to be carried out. List of installation in various prominent institution in India has to be produced. Testimonial(s) from Govt institution where the quoted instrument is working satisfactorily.