

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
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Pre-Bid meeting for Fluorescence Microscopy

Corrigendum Notice-1

Changes in Specification:

Serial No.	Tender Specification	Amended Specification
1.	Microscope stand Fully motorized inverted Microscope stand with Apochromatically corrected fluorescence beam path, integrated Light Intensity Manager and Contrast Manager for bright field applications and dedicated TFT/LCD display for convenient operation and control of the microscope. The microscope should have one or more camera ports. In built Motorized Z-focus drive with a minimum step resolution of 10 nm or better.	Microscope stand Motorized inverted Microscope stand with integrated Light Intensity Manager and Contrast Manager for bright field applications and dedicated TFT/LCD touchscreen display for convenient operation and control of the microscope. The microscope should have one or more camera ports. In built Motorized Z-focus drive with a minimum step resolution of 5 nm or smaller.
2.	Eye Piece Paired wide-field focusable 10X eye- pieces with FOV 23 or better and adjustable diopter setting of minimum +/-5. Observation tube inclined at 45 degree.	Eye Piece Paired wide-field focusable 10X eyepieces with FOV 25 or better and adjustable diopter for both eyes. Observation tube inclined at 45 degree or better.
3.	Transmitted Illumination High Intensity LED equivalent to 100- Watt Halogen or 100W (Halogen light source with fully motorized control of transmitted Illumination. Fully motorized transmitted light axis with fast (specify speed) motorized shutter for Multi-dimensional Imaging.	Transmitted Illumination High Intensity LED (equivalent to 100-Watt Halogen) light source with fully motorized control of transmitted Illumination. Should include inbuilt fast motorized TTL shutter of 10 ms or lesser switching time.
4.	Motorized Condenser Motorized, Universal Achromatic- Aplanatic condenser with a N.A of 0.55 or better (with integrated polarizer) for Ph, DIC, BF, DF; preferably with 6 position turret disks. Motorized condenser should work for all objectives.	Motorized Condenser Motorized, Universal Achromatic- Aplanatic condenser with a N.A of 0.55 or better (with integrated motorized polarizer) for Ph, DIC, BF, DF; preferably with 6-7 position turret disks. Motorized condenser should work for all objectives.
5.	Objective Nosepiece Minimum 6 position motorized objective DIC	Objective Nosepiece Minimum 6 position motorized / encoded objective

	nosepieces or better, preferably with faster movement.	DIC nosepieces with DIC turret or motorized DIC Slider or better, preferably with faster movement.
6.	Objectives High N.A, high light transmission efficient Plan Achromatic or Semi Plan Apochromat Objectives for BF, fluorescence and DIC application: Plan-Neofluar 10x/0.3 M27 (WD=5.2) Plan-Apochromat 20x/0.8 M27 (WD=0.55) Plan-Neofluar 40x/0.75 M27(WD=0.71) Complete motorized DIC accessories 63x should be included in main quote.	Objectives High N.A, high light transmission efficient Plan Fluorescence grade Objectives for BF, Phase contrast fluorescence and DIC application: 10x/0.25 PH1, 20x/0.35 PH1 W.D 6.9 mm, LWD 40x/0.60 DIC, PLANAPO 60x/63x 1.40 DIC Complete motorized DIC accessories 40x, 60x/63x should be included in main quote.
7.	Reflected light Illumination Fluorescence attachment with 120W Metal Halide Illuminator including built in power supply, lamp module, infrared filter and CAN bus cable. Fluorescence light source with integrated motorized shutter control.	Reflected light Illumination Fluorescence attachment with High Intensity Solid state LED Illuminator including built in power supply, Fluorescence light source with integrated motorized shutter control. Life time 25,000 hrs. Should have control pod with intensity regulator, individual LED channel control through the control pod.
8.	Filters High quality Band Pass (BP) Fluorescence filters for imaging of DAPI, GFP, RFP should be quoted	Filters High quality Band Pass (BP) Fluorescence filters for imaging of DAPI, GFP, RFP should be quoted. Long band pass/ wide band pass filters / Multiband pass filters should not be quoted.
9.	Camera High resolution, scientific grade, 5MP CMOS monochrome camera with 3,45µm pixel size Frame rate 36fps @ full resolution, USB 3.0 interfaces	Camera High resolution, 4MP or higher monochrome scientific CMOS (sCMOS) camera with 6.5µm x 6.5µm pixel size Frame rate 40fps or higher @ full resolution, USB 3.0 interfaces. QE80% or higher. Trigger functionality.
10.	Optical Sectioning Module Structured Illumination through grids with Automatic Grid Change Technology for optical sectioning preferably with higher light transmission efficiency. A special grid illumination device to be incorporated in the FL illumination optics of the microscope with easy switch over facility between normal FL illumination and grid illumination (for	Optical Sectioning Module Structured Illumination through grids with Automatic Grid Change Technology for optical sectioning preferably with higher light transmission efficiency. A special grid illumination device to be incorporated in the FL illumination optics of the microscope with easy switch over facility between normal FL illumination

	optical sectioning). Motorized and automatic grid focusing and superimposition of the same into the image plane for different fluorescence channels through accurate and calibrated scanning mechanism should be possible. Automatic multidimensional acquisition of optical sections. Seamlessly integrated hardware and software from the same manufacturer for better compatibility. Optical sectioning module should be factory inbuilt with the microscope and should be provided by same manufacturer. Objective specific selection of different Grid frequencies to match the numerical aperture of the objective and wavelength of fluorescence for multi channel imaging should be automatic.	and grid illumination (for optical sectioning). Motorized and automatic grid focusing and superimposition of the same into the image plane for different fluorescence channels through accurate and calibrated scanning mechanism should be possible. Automatic multidimensional acquisition of optical sections. Seamlessly integrated hardware and software from the same manufacturer for better compatibility. Optical sectioning module should be factory inbuilt with the microscope and should be provided by same manufacturer. Objective specific selection of different Grid frequencies to match the numerical aperture of the objective and wavelength of fluorescence for multi channel imaging should be automatic. OR The high precision Z stacking should be achieved with help of 5nm Z step size with sCMOS camera, Fully loaded 3D Deconvolution and 2D Deconvolution.
11.	Image Processing Basic adjustment of brightness, contrast and gamma; adjustment of color in BF images; correction of bleaching effect in Z stack images; pixel shift correction; Image smoothening, Image Sharpening.	Image Processing Basic adjustment of brightness, contrast and gamma; adjustment of color in BF images; correction of bleaching effect in Z stack images; pixel shift correction; Image smoothening, Image Sharpening. 3D Deconvolution and 2D Deconvolution
12.	Image Analysis & Documentation Interactive and basic measurement such as Length, Angle, diameter, Area, Perimeter Gray value measurement along a line / Intensity measurement. Statistical analysis and evaluation of Data. Creation of User defined reports.	Image Analysis & Documentation Interactive and basic measurement such as Length, Angle, diameter, Area, Perimeter Gray value measurement along a line / Intensity measurement. Statistical analysis and evaluation of Data. Creation of User defined reports. Modules for colocalization, calcium imaging, FRET SE and dye separation.

All the other terms and condition/specification remain unchanged.

Due to changes in the technical specification of Fluorescence Microscopy after the pre-bid meeting, the last date of submitting tender has been extended.

Previously the last date of submitting tender was 23.09.2022. The last date of submitting tender has been extended to 21.10.2022.

The date of opening the tender i.e, the technical bid will be opened on 28.10.2022.