

Clarifications/ Amendments

Inverted Fluorescent Research Microscope (NIT No NIPER/RBL/2020-21/229/272)

Pre-bid meeting: 17/09/2021 at 15.30 pm (online)

Features	Description	Queries raised by the prospective bidders/ Requested changes	Clarifications/ Amendments in response to the queries
Microscope stand	Inverted, Large, Stable, bearing mounted Microscopy stand with provision to attach camera with 0:100 % light sharing. Motorized Z focusing of min. 5 nm or better step size with body mounted focussing knobs on both sides Course and Fine knobs with travel range preferably 10 mm or more.	Inverted, Large, Stable, bearing mounted Microscopy stand with provision to attach camera with 0:100 % light sharing. Motorized Z focusing of min. 10nm nm or better step size with body mounted focussing knobs on both sides Course and Fine knobs with travel range preferably 10 mm or more.	No change
Observation Tube	Binocular tube with minimum 25mm FOV.	Binocular tube with minimum 22-25mm FOV.	The term is modified as "Binocular tube with minimum 22-25mm FOV."
Transmitted light	Coded Transmitted light continuously variable luminance Adjustment of brightness, with Field Diaphragms. Transmitted light with 3000k - 4500K (preferable white light); with inbuilt fast shutter of min 10ms or better, preferably LED for long life (approx. 20000 hrs or more).	Transmitted light continuously variable luminance Adjustment of brightness, with Field Diaphragms. Transmitted light with 3000k - 4500K (preferable white light); preferably LED for long life (approx. 20000 hrs or more).	Coded Transmitted light continuously variable luminance Adjustment of brightness, with Field Diaphragms. Transmitted light with 3000k - 4500K (preferable white light); with fast shutter of min 10ms or better, preferably LED for long life (approx. 20000 hrs or more).
XY Stage	Programmable motorized X-Y scanning stage	Programmable linear	No-change

	with universal sample holder. Stage must be operated both manually as well as automated with integrated imaging software control.	encoded motorized X-Y scanning stage with universal sample holder. Stage must be operated both manually as well as automated with integrated imaging software control.	
Objective nosepiece	Encoded more than 5 position nose pieces for easy operation. Features must be high-grade smooth operation and with positive click stops.	Motorized 6 position nose pieces for easy operation. Features must be high-grade smooth operation and with positive click stops.	Motorized more than 5 position nose pieces for easy operation. Features must be high-grade smooth operation and with positive click stops.
Condenser	Encoded Condenser with min. 0.50 NA or better and minimum 7 or more position turret to accommodate modules for different contrasting techniques.	Motorized condenser with min. 0.50 NA or better and minimum 6 or more position turret to accommodate modules for different contrasting techniques.	Motorized condenser with min. 0.50 NA or better and minimum 7 or more position turret to accommodate modules for different contrasting techniques.
Fluorescence	Automated Fluorescence Filter turret with 6 or more positions. Adjustable aperture and field diaphragms; Should have body inbuilt approx. 5 position light intensity filter wheel / slider. Along with solid state LED light source with trigger functionality and min. 10,000 hrs or higher lamp life. The unit should be controlled by same imaging software. Should include LEDs from 395 nm to 680 nm excitation. Should be integrated with microscope imaging software.	Automated Fluorescence Filter turret with 6 or more positions. Adjustable aperture and field diaphragms; Along with solid state LED light source with trigger functionality and min. 20,000 hrs or higher lamp life. The unit should be controlled by same imaging software. Should include LEDs from 395 nm to 680 nm excitation. Should be integrated with microscope imaging software.	No change
Objectives	Plan Fluorescence grade objectives 10x/0.25 PH, 20x/ 0.35 PH, 40x /0.60 DIC with correction collar and 63x/1.30 oil for DIC. All objectives	Plan Fluorescence grade objectives 10x/0.25 PH, 20x/ 0.35 PH, 40x /0.60 DIC with	Plan Fluorescence grade objectives 10x/0.25 PH, 20x/ 0.35 PH, 40x /0.60 DIC with correction collar and

	with better NA and working distance would be preferred.	correction collar and 60/63x/1.30 oil for DIC. All objectives with better NA and working distance would be preferred.	60/63x/1.30 oil for DIC. All objectives with better NA and working distance would be preferred.
Scientific CMOS Camera	Dedicated high resolution Scientific CMOS camera with Minimum of 15 fps speed at full resolution. Should have appropriate interface with trigger function and high-speed transfer of image without compromise in image quality.	Camera Unit with CMOS chip with scientific image analysis capability, with resolution of more than 20 million pixel, 2.3 MP color global shutter CMOS with pixel size of 5.86umX5.86um, Peltier cooling, should have high speed of 60fps at resolution of 2.3 megapixel, capable of acquire color and monochrome image.	Dedicated high resolution Scientific CMOS camera with 4 MP or better resolution with Minimum of 15 fps speed or better at full resolution. Should have appropriate interface with trigger function and high-speed transfer of image without compromise in image quality.
Computer System	Latest 64 bit control computer with Intel Xeon Processor or better, DDR RAM 64 GB or better, HDD: 4 TB SATA upgradable to 8TB or better, DVD, SuperMulti SATA +R/RW, Graphics: AT Fire GL V5200 4GB DH DVI, Gigabit Ethernet, pre-installed Win 10 64 bit , USB 2.0/3.0, Fire wire. Large 28" LCD/ TFT monitor or better	-	Latest 64 bit control computer with Intel Xeon Processor or better, DDR RAM 64 GB or better, HDD: 4 TB SATA upgradable to 8TB or better, DVD, SuperMulti SATA +R/RW, Graphics: AT Fire GL V5200 4GB DH DVI, Gigabit Ethernet, pre-installed Win 10 64 bit , USB 2.0/3.0, Fire wire. Large 27" LCD/ TFT monitor or better