



Notice Inviting e-Tender

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**Procurement of 1 (One) Fluorescence Microscope for Regional Rabies
Diagnostic Laboratory at ID & BG hospital**
(Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-312/2023

Dated-15.06.2023

Amendment-I

Revised Technical Specification

Fluorescence Microscope

1. Upright **trinocular** microscope supporting brightfield and fluorescence imaging modes with camera and imaging software
2. **Microscope optics:** Microscope with quintuple revolving nosepiece and infinity-corrected optical system for maximum signal-to-noise ratio for optical performance from UV to near-infra red wavelength spectrum.
3. **Illumination:** Integrated illumination source with the microscope, Köhler illumination for fluorescence imaging, LED (Eco-Illumination) illumination source with 50,000 hours lifetime
4. **Fluorescence filters:** The microscope should have **3 or more** position turret/**slider** with filter blocks for DAPI (357/447 nm), Texas red (585/624 nm), and FITC (495/520 nm) **with tolerance \pm 10 nm, (LED based reflected illumination).**
5. **Observation tube:** Binocular observation tube with interpupillary distance adjustment of **51** –75 mm, dedicated port to attach camera for fluorescence

imaging

6. **Eyepiece:** Wide field paired eyepiece 10X Eyepiece with diopter adjustment on both eyepieces (Field of view 22 mm), Eyepiece Guard (for 10X eyepiece lens) and dust cover
7. **Stage:** fixed stage plate with mechanical X/Y movement, standard inserts for slides.
8. **Objectives:** Objectives should be suitable for bright field and fluorescence imaging applications, Plan **achromatic** 4X (Numerical aperture **0.10**, working distance **18.0** mm or higher), Plan fluorite 10X (Numerical aperture 0.30, working distance of **10.0** mm or higher), Plan fluorite 40X (spring loaded, Numerical aperture **0.7 mm or higher**, working distance of 0.2 mm or higher, suitable, suitable for a coverlip thickness of 0.17 mm), suitable with oil immersion mounts, suitable for a coverlip thickness of 0.17 mm), and plan fluorite 100X (spring loaded, Numerical aperture 0.5-1.30, working distance of 0.1 mm or higher, suitable with oil immersion mounts, suitable for a coverlip thickness of 0.17 mm)
9. **Condenser:** **Universal abbe condenser with Numerical aperture 0.9 or higher.**
10. **Camera:** Scientific grade **cooling** monochrome camera suitable for fluorescence imaging with a resolution of 5.0 megapixels or higher, CMOS sensor with **3.45** μm pixel resolution or better, USB 3.0 interface or better, live image display at minimum of 15 fps at full resolution, 24 bit or higher colour depth, exposure time of at least **1 milliseconds to 1 seconds**, should have suitable c-mount adaptor to provide same field of view as observed in eyepieces
11. **Computer:** **Branded** PC with i5 processor or better, 8GB or higher RAM, 1 GB graphics card, 512 GB solid state drive, **22"** or higher screen, Genuine Windows **10 or higher OS**, USB3.0 interface
12. **Imaging software:** Software for acquisition of photograph or live video, ability to annotate, put a scale bar, and basic manual measurements, the software must provide a 1-click RGB channel overlay and ability to sequentially acquire brightfield and fluorescence image and automatic overlaying of the captured

images, the software and camera should be from the same OEM. A calibration slide for imaging software must be supplied.

13. **UPS:** 1 KVA online UPS with microprocessor control suitable for providing 15-30 minutes of uninterrupted power supply to both computer and microscope.
14. **Installation:** Free of charge (inclusive of all accessories required) installation and satisfactory demonstration in the laboratory.
15. **Certification:** The product should have European CE / USFDA / BIS certificate.