

Subject: Procurement of equipment under ICMR Project (PI- Prof. S. Raisuddin, Department of Medical Elementology & Toxicology)

NAME OF EQUIPMENT - FLUORESCENT MICROSCOPE - 01

Specifications of Microscope:

1. Sturdy and modular designed universal microscope suitable for Bright Field, Dark Field, Phase Contrast and Fluorescence studies.
2. Three-way infinity corrected optical system with anti-fungal coating.
3. Ergonomics 25° Seidentopf trinocular viewing head (dedicated for fluorescence) with 360° rotatable eyepiece, body with attached Allen screw key that can be used for adjustment and alignment of complete microscope.
4. Interpupillary adjustable distance: 54-75mm.
5. Diopter +/-5 adjustable.
6. Tube Size dedicated for 26 mm.
7. Eyecups (Pair).10X/22mm with rubber eyecup (Pair).
8. Mechanical Stage: 3D stage, Double layer, scratch proof with special fabrication processing, anticorrosive and anti-friction; 175x145mm mechanical stage with underhand, moving range: 76x50mm, precision: 0.1mm, with damping clips (Right hand Control), and torque adjustment mechanism, Double slide holder.
9. Anti-Fungal coated, high contrast Objectives- 4X, 10X, PH 20X, Fluor 40X, Fluor 100X, PH 40X.
10. Sextuple nosepiece (for 6 objective) with DIC slot.
11. Universal turret condenser for phase contrast, Dark Field and Bright Field.
12. Integrated all-metal high-pressure die-casting body, precision transmission mechanism with pinion and rack, Coarse focusing scope: 25mm, with tightness adjustment and place limit set, fine adjustable precision: 0.002mm.
13. Koehler illumination light intensity manager switch High colour reproductively 9W LED light source, intensity continuously adjustable, 100V-240V_AC50/60Hz wide range voltage

Specification of fluorescence attachment:

1. Fluorescence attachment with filter for minimum 6 wave bands, turret type (minimum 6 fluorescence filter simultaneously), Mercury Lamp 100W, Lamp house, HBO 100W, Collector Lens, Mercury Lamp Socket for HBO 100W, Starter Unit, HBO Lamp 100W, Lamp Centering Tool, Power Cord.
2. Fluorescence filters- DAPI, FITC and TRITC.

Specifications of camera attachment:

Microscopic scientific grade high speed digital camera, for phase contrast, bright field and fluorescence Image. High speed USB 3.0 PC connection, real time live image resolution: Cooled 12-16 mega pixels, electronic shutter exposure time: 0.1ms~2000ms, white balance: automatic/ advanced manual working, temperature: -20°C to 60°C, programmable control: Image size, exposure time, brightness, gain, gamma

correction, colour, contrast, saturation, image analysis Software, various professional functions: video broadcast; time lapse capture; video record; video measurement; video calibration, grey calibration. Image Processing and Enhancement control and adjust image by contrast, de noise. Various video and image measurement methods like area, perimeter, angle etc.

Specifications of computer attachment:

Branded compatible PC with i5 Intel processor, 8GB RAM, 1TB HDD, 24" Monitor with touch screen, windows 10 or above, DVD writer, USB3.0 port wireless key board and mouse installed with desired image capture and processing software.

Other accessories:

LBD color-change filter (Φ 45mm), immersion oil, dust cover, power cord.

Warranty: 36 months