

# **Notification Inviting Tenders For Inverted Fluorescence Microscope**

## **Specifications for Inverted Fluorescence Microscope**

1. The System must be Infinity-corrected optical system with Royal Microscopical Society (RMS) threaded objectives with a 45 mm parfocal distance supporting fluorescence, brightfield, color brightfield, and phase contrast imaging modes.
2. System must be a compact integrated unit including: microscope, digital cameras, computer, high power fluorescence lighting system for Neurobiology, Immuno-oncology, Live-cell imaging, 3D cell imaging (e.g., organoids, spheroids), Immunohistochemistry (IHC) applications etc.,.
3. The instrument should have Illumination through five-position chamber for 4 fluorescence illuminators plus brightfield imaging; light illuminators with integrated hard-coated filter set and LED light source with >50,000-hour life; broad selection of standard and specialty LED illuminators. (List of LED illuminators to be attached).
4. Imaging methods by Single color, multicolor, time lapse, Z-stacking, movie capture.
5. Condenser - 60 mm LWD condenser; 4-position turret with a clear aperture and 3 phase annuli.
6. System must include mechanical X/Y stage; travel range 120 mm x 80 mm with sub micron resolution, drop in inserts to receive vessel holders drop-in inserts to receive vessel holders and lockdown holders to fix sample in place.
7. The system must have automated focus mechanism with sub micron (0.150  $\mu\text{m}$ ) resolution (single step accuracy) and mechanical focus wheel with single knob for coarse and fine focus.
8. System must include 5 position objective turret with front mounted control and 10x, 20x, 100x achromat and 40x, 60x Fluorite objectives to be supplied along with instrument.
9. The system must include 03 (GFP, Texas Red and Dapi) independent high output LED illuminators to be supplied along with instrument. The LED illuminators must have independent intensity control.
10. Fluorescence LED illuminators must be single, interchangeable illuminators that can be easily removed, installed and automatically recognized by the instrument software and adjust the configuration accordingly.
11. The system must include an integrated high-sensitivity 3MP or better (2,048 x 1,536) monochrome CMOS sensor with 3.45  $\mu\text{m}$  pixel resolution.
12. The system must provide a 1-click RGB channel overlay and also able to sequentially acquire a phase contrast image and a fluorescence image with a single mouse click, then overlay them automatically.
13. Review: Allows you to review, measure, and annotate captured images. and Cell count: Allows you to count cells in fluorescence mode post-acquisition.

14. The system should be compatibility with the onstage Incubator for precise control of temperature, humidity, and gases for normoxic or hypoxic conditions allows a wide range of biological studies under physiological conditions.
15. The system must include Wizard based software and include downloadable software updates from time to time at no additional cost.
16. The system with small foot preferable.
17. The System should have networking capability connection through Windows/SMB network via an Ethernet cable connection and USB 3.0 WiFi dongle.
18. System must provide the following output file formats: 16 bit monochrome TIFF or PNG (12 bit dynamic range); 8 bit color TIFF, PNG JPG and BMP.
19. System should have following output ports : Power, 4 USB 2.0 ports, 1 USB 3.0 port, 1 Display Port, 1 RJ45 network jack.
20. System should include LCD Display - 18.5" articulated LCD color monitor with 1920x1080 pixel resolution.
21. The system should be supplied with computer configuration Embedded PC with 4 GB RAM. With 10GB SSD and 16GB USB 3.0 memory stick.

**# Please submit both technical and financial quotes separately at the following address**

**On or before Jan 17th, 2020. This tender notification is same as earlier notification from our lab, but date is extended.**

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