

**Global Tender Notification for the procurement of “Histopathology
Microscope & Slide Scanner Module” at the Indian Institute of Science,
Bangalore
(TENDER FROM FOREIGN VENDORS)**

Date: 22nd November, 2022

Last date of submission of tenders: 5th December 2022

To Whom It May Concern

This is to seek quotations valid for 90 days for the supply of equipment as per the specifications described below. A quotation should clearly indicate the terms and conditions of the vendor, delivery schedule, applicable taxes, payment terms etc. The tender should be submitted in two separate sealed envelopes – one containing the “Technical bid” and other containing the “Commercial bid”, both of which should be duly signed and must reach the undersigned on or before 17:00 hours, 5th December 2022.

Global tender is being sought for following items.

1. High performance Histopathology Microscope
2. Slide scanner and Imaging data analysis module

Please note:

1. Quote should come from Foreign/ International Original Equipment Manufacturer (OEM) or their Indian authorized distributor or Indian manufacturer.
2. The quotations should be in INR only

Quote/bids should be addressed to:

**The Chair
Department of Microbiology & Cell Biology,
Division of Biological Sciences,
IISc, Sir CV Raman Avenue, Bengaluru 560 012**

3. TENDER SPECIFICATIONS

1. High performance Histopathology Microscope

General Description

Histopathology microscope should be equipped with various high-performance objectives, support both brightfield and fluorescence samples with dedicated cameras, and be integrated with easy-to-use software.

1. Microscopic Components:

a. 7 or more positions automatic nosepiece with high quality objectives as below

i. Fluor 5x / 0.25

ii. Plan-Apochromat 10x / 0.4 or better

iii. Plan-Apochromat 20x / 0.8 or better

iv. Plan-Apochromat 40x / 0.95 or better

Preference would be given to objectives with better resolution.

b. Motorized Condenser with NA of 0.8 or better

c. Workable with brightfield and Fluorescence slide

d. System should be able to preview the complete slide and also read and record user's handwritten label.

e. Reflected-light illumination motorized FL with Reflected-light illuminator along with motorized rectangular luminous field diaphragm

f. Filter wheel 6x emission, beam splitter: Beamsplitter- and emission filter wheel, mot., 2x6 position combined beam splitter- and emission filter wheel to receive up to 5 emission filters d=25mm and 5 beam splitters 26x36mm, 1 position each for brightfield

g. Solid-State LED Light Source with 7-channel fluorescence light source with integrated control unit for continuous brightness adjustment, quickly switchable and stable on the long term. With integrated monitor diode for repetitious brightness adjustment. It should be equipped with 7 solid state LED lamps. Far Red (735nm) for excitation of Cy7 and similar dyes; Red (630nm) for excitation of Cy5, Alexa 631, TOTO-3 and similar dyes; Yellow (590nm) for excitation of mCherry, Alexa 568, mPlum and similar dyes; Green (555nm) for excitation of Cy3, TRITC, DsRed and similar dyes; Blue (475nm) for excitation of eGFP, Fluo4, FITC and similar dyes; Violet (430nm)

for excitation of eCFP, Lucifer Yellow, Alexa 430 and similar dyes; UV (385nm) for excitation of DAPI, Alexa 405, Hoechst 33258 and similar dyes

h. Filter wheel Excitation motorized. 6 positions External filter wheel for up to 6 excitation filters. Complete fluorescence beam path should be apochromatically corrected.

i. Camera for fluorescence scanning: A highly sensitive camera CMOS sensor to capture weaker signals, with a minimum of 12-megapixel resolution or more at full frame, bit depth 14 bit. The camera should be able to achieve a minimum of 20 frames per second at full frame.

j. LED Transmitted light source for long lifetime and consistent intensity/color output.

- Since the system is primarily to be used for scanning and imaging a lot of slides, it should have an advanced calibration feature to guarantee the same output over time. This includes fundamental features like but not limited to scaling, parfocality, parcentricity, uniform stitching, Color calibration for color camera, Channel specific fluorescence shading correction.

1. Acquisition of imaging using software should be automated.

2. System should have automated user-friendly feature to set up imaging and scanning parameters that encompasses hardware settings including scan area, z-stack settings, channels, etc., such that the system can be used by users with minimal training. The system should have a feature to store such settings and recall these user specific settings.

3. Computer: Latest high-end workstation PC capable of controlling the system. Since the system is expected to churn out large data sets, the microscope workstation preferably should have a minimum of 192 GB RAM with at least 12 TB of storage space. Monitor 27-inch (visible diagonal: 68.58 cm, 16:9) Max. resolution: 2560 x 1440 pixel @ 60 Hz.

4. High end PC for offline analysis: Offline analysis system should be capable of processing the generated images even in batch mode smoothly.

2. High Performance Automatic Slide scanning Module (Slide Scanner)

General Description

High performance closed-box (to avoid stray light) camera-based automatic slide scanner system supports normal microscopy glass slides. The system should be equipped with various high-performance objectives, support both brightfield and fluorescence samples with dedicated cameras, and be integrated with easy-to-use software and web-based database (to allow imaging sharing, annotations and analyses over several users).

Technical Specification

5. Scanner Unit Box

- a. Tray concept (complete slide frame to be loaded on to imaging region to avoid dropping of slides, slides with coverslips should be loaded without any contact with coverslip) for slide with varying thickness (all types on conventional microscope slides) useful for data archiving. Complete system should be fully automated with no user interference except to control system through software.
- b. Slide loading capacity should be 100 glass slides with automated loading. User should be free to give certain slides priority to be scanned first.
- c. Complete specimen area should be accessible for detection and scanning, including corners. The system should be able to detect tissues, specimen area without using fluorescence mode to avoid bleaching of sensitive fluorescence samples. System should be available with prescan unit.
- d. The system should be able to detect multiple slices/sections in the same slide automatically.
- e. Magazine for 100 slides 76x26mm motorized, Encapsulated magazine for 100 slides (76x26mm), consists of 25 slewing trays, which can be moved separately to hold up to 25 mounting frames each for 4 slides (76x26mm) or 2 slides (76x52mm), with an integrated detection of slides and types of mounting frames, and an integrated handle to swivel out all trays with one movement.
- f. The system should have precision scanning stage with 300mm x 100mm and should be able to scan complete slides and still resolve sub cellular structures. Preferably the system should be able to achieve the desired image resolution with minimal scanning time. Please mention the scan speed of your system along with achievable resolution.
- g. System should be able to preview the complete slide and also read and record user's handwritten label.

h. Camera for scanning should be able to capture and reproduce true color of the specimen CCD color camera 14 bit. The camera resolution should be at least 5-megapixel at full frame and be able to achieve a speed of minimum 60 frames per second at full frame.

i. Acquisition of imaging using software should be automated. It should be able to but not limited to automatically scan all the loaded slides with minimal operation.

Terms and conditions:

1. Quote should come only from Foreign Equipment Manufacturer (OEM) or their Indian authorized distributor.
2. The quotations should be in INR only.
3. The Quote should include all cost including transport, custom clearance, transport to the site of installation and complete installation.
4. The quote should include Warranty for 3 years from the date of installation.
5. Quote should support for include annual refresher training every year for at least first 3 years.
6. The quotations should be submitted in two bids system; i.e., Technical bid, and Commercial bid.
7. The technical bid must include all details of technical specifications of the instrument along with commercial terms and conditions masking only the price component. Bill of materials, brochures, technical datasheets, and any other document may be enclosed to help the evaluation of the technical bid. Please also include warranty terms and any other information on upgradation terms in the technical bid.
8. The commercial bid must include the price of the instrument in Indian currency indicating break up of: Installation, commissioning and training charges, including any incidental expenses, if any.

6. Price of every line item in the commercial bid should be quoted along with the total quoted price for the instrument to be operational (fixed and ready to use) in our facility.
7. Both the Technical and Commercial bid should be put in separate sealed envelopes, and put together in another cover stating “**Histopathology Microscope & Slide Scanner Module**” and should reach us on or before 17:00 hours 5th -December-2022
8. The vendor should have a good track record of having previously supplied at least 5 Histopathology Microscope & Slide Scanner Modules in India (please furnish details)
9. The vendor should have team of dedicated engineers for application and service support based out of Bangalore
10. The lead time for the delivery of the equipment should not be more than three months from the date of receipt of purchase order
11. The validity period of the quotation should be 90 days
12. If the goods are found to be defective, they have to be replaced or rectified at the cost of the supplier within 30 days from the date of receipt of written communication from us. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.
13. The purchaser reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time period to award of construct without thereby incurring any liability of the affected bidder or bidders
14. Please submit the proposal to the following address: The Chair, Department of Microbiology and Cell Biology, Indian Institute of Science, C. V. Raman Avenue, Bangalore 560012.