Corrigendum

Revised technical specifications for the procurement of a confocal microscope
Tender number: RCB/GTE/01/22-23/CM

Following initial publication of the technical specifications and the pre-bid meeting held on April 18, 2022, the institution has considered all points put forth by the various potential bidders and revised the technical specifications, with the aim of procuring a high-end machine capable of meeting the technical and scientific requirements, while inviting wide participation.

The following points in the technical specifications should now be read as below. All other points remain unchanged.

Section A: Motorized Inverted Fluorescence Research Microscope

a)Fully Motorized Inverted Fluorescence Research Microscope for BF/DIC/Fluorescence preferably with dedicated touch screen TFT/ tab display for controlling motorized components of the microscope.

b)Programmable motorized X-Y scanning stage with a fast, high precision Piezo/ Galvo motor for precise z-scanning and focusing (step size 5 nm or better, increment accuracy 1.5 nm or better, travel range minimum 300 micrometers).

d)Laser based or LED based (> 785 nm) z-drift compensation mechanism for long term live cell imaging application should be available as standard with the system.

e) Widefield illumination: LED illumination for transmitted light (brightfield and DIC) & Fluorescence (DAPI/ Hoechst, GFP/FITC, Cy3, Texas Red/ Rhodamine/ mCherry, Cy5) should be offered. The LEDs should have a minimum lifetime of 10,000 hours.

k) An imported, active, real time damping anti-vibration table for the complete microscope should be provided.

Section B: Spectral confocal imaging unit with high sensitive detectors

a) Laser point scanning and confocal detection unit with high sensitive, high dynamic range spectral Hybrid/GaAsP detectors. Detectors capable of working in intensity and spectral mode imaging. Capable of simultaneous detection and separation of at least 4 fluorophores based on high sensitive GaAsP/ Hybrid or equivalent detectors with QE 45% or higher.

b) Scanner unit should have port(s) for Vis and UV lasers. It should include high efficient excitation laser suppression beam splitting device with low angle of incidence dichroics.

c) The scanner should have the capability to perform "ROI" imaging. Maximum scan resolution 8K x 8K or better per channel and reduce to 64 x 64 resolution or better.

d) The system should be able to perform fast dynamic live cell imaging with a high speed of 25 fps or better @ 512X512 resolution simultaneously with 2 or more channels, and 280 fps or better at 512x16 resolution. The scan field diagonal should be 20 mm or higher. Scan zoom range should be 1X to 40X with increments of 0.1X.

Section C: Solid State Diode Visible Laser module with AOTF control with seamless integration of UV-Vis lasers without any limitations

e) Blue Diode Laser 405 nm or equivalent for DAPI, Hoechst fluorophores (minimum 30 mW power).

f) All lasers through visible port should be connected to the scan head through fiber optic cable and controlled through a computerized AOTF for fast laser switching and attenuation in pixel precise synchronization with the laser scanner for ROI scan for FRAP, photo activation/conversion experiments.

Section D: Realtime, online sub-diffraction limit imaging

c) Should be able to achieve lateral resolution of 130 nm or better and axial resolution of 350 nm or better without any manual post-processing after image acquisition.

Section F: System control and Imaging Software

d) ROI bleach for FRAP, photo-activation/conversion experiments.

Section G. Warranty

a) The complete system should be offered with a comprehensive warranty from the OEM for 5 years from the date of installation. The warranty should cover all parts, lasers and labour.

b) Post-warranty CAMC: Comprehensive post-warranty CAMC (comprehensive annual maintenance contract, including all parts, labour and lasers) should be separately offered on the entire system for an additional 5 years (years 6-10) after the completion of the 5-year warranty. This will be considered towards calculation of the final bid pricing.

Additional point c) The bidder should provide details of dedicated, qualified service personnel located in Delhi/NCR to attend to any technical issues rapidly. The designations and expertise of the personnel should be listed.

Additional point d) The bidder should include the following statement in the bid: "All technical issues will be attended to by qualified service personnel within 1-2 working days of being reported, and will be resolved to the satisfaction of the institution with a down time not exceeding one week in each instance. In case of non-compliance by us, the institution reserves the right to forfeit the performance bank guarantee submitted by us and/or take any other suitable punitive action".