

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES,  
STORE SECTION (DO), 1<sup>ST</sup> FLOOR, ANIMAL HOUSE,  
ANSARI NAGAR, NEW DELHI-110 029, INDIA**

# **TENDERENQUIRY DOCUMENT**

**(Two Bid System for Machinery & Equipments)**




शरीरमाद्यं खलु धर्मसाधनम्

**Advertised Tender Enquiry No.: XX-62/SO(DO)/Anat./23-24/M&E**

**Brief Description of Goods** : Purchase of Upright Motorized Research  
Microscope with CMOS Camera - 02 Nos.

**SECTION-I**

|  |  |                                  |                                   |
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|   | <p><b><u>ALL INDIA INSTITUTE OF MEDICAL SCIENCES</u></b><br/><b><u>ANSARI NAGAR, NEW DELHI-110 029</u></b><br/><b><u>TENDERS ENQUIRY DOCUMENTS (TED)</u></b></p> |                                  |                                   |
| <p><b><u>Advertised Tender Enquiry No : XX-62/SO(DO)/Anat./23-24/M&amp;E</u></b></p>   |  |                                  |                                   |
| <p><b><u>On behalf of Director, AIIMS, Ansari Nagar, New Delhi-110 029, online bids are invited in two bid system (Techno-Commercial Bid and Financial Bid) from reputed, eligible and qualified firms/manufacturer for supply of following Goods:</u></b></p> |  |                                  |                                   |
| <b>S. No.</b>  | <b>Brief Description of Goods</b>  | <b>Quantity</b>                  | <b>Amount of Bid Security/EMD</b> |
| 1.   | Purchase of Upright Motorized Research Microscope with CMOS Camera   | 02 Nos.                          | INR Rs.1,80,000/-                 |
| <b>CRITICAL DATE SHEET</b>   |  |                                  |                                   |
| Published Date & Time  |  | 12.12.2023 at 06.00 pm           |                                   |
| Bid Document Download/Sale Start Date  |  | 12.12.2023 at 06.00 pm           |                                   |
| Seek Clarification Start Date  |  | 12.12.2023 at 06.00 pm           |                                   |
| Seek Clarification End Date  |  | 19.12.2023 at 04.00 pm           |                                   |
| Pre Bid Meeting  |  | NA                               |                                   |
| Pre Bid Meeting Place & Address  |  | NA                               |                                   |
| Bid Submission Start Date & Time   |  | 26.12.2023 at 04.00 pm           |                                   |
| Bid Submission End Date & Time   |  | 15-01.2024 (Monday) at 03.00 pm  |                                   |
| Bid Opening Date & Time  |  | 16.01.2024 (Tuesday) at 03.00 pm |                                   |

**Section – VII**  
**TECHNICAL SPECIFICATION AND GENERAL POINTS**

Technical Specifications for 'Upright Motorized Research Microscope (Bright field, Phase contrast & Fluorescence) with CMOS Camera, H&E/IHC rotatable platform and accessories.

| <b>A: MICROSCOPE</b>                      |  |
|---|--|
| <b>Optical system</b>                     | <ul style="list-style-type: none"> <li>• High quality optics with <b>Universal Infinity Corrected</b> Optical System for high brightness, contrast &amp; colour correction</li> <li>• Coated with <b>anti-reflection/anti-fungal</b> treatment</li> <li>• <b>Upgradable</b> to automated FISH imaging platform with software</li> </ul>  |
| <b>Motorized stand, stage &amp; focus</b> | <ul style="list-style-type: none"> <li>• Fully <b>motorized</b> upright microscope preferably with <b>in-built Z-drive</b> stepper motor using nose piece/stage focus, with a minimum step size of <b>10nm</b> for better stability</li> <li>• Motorized <b>Z focus mechanism</b> with fixed stage enabling less drift of samples during time lapse and stitching imaging (provide Z drift compensation mechanism or focus linear sensor for no drift if nosepiece motorized Z focus mechanism is not available)</li> <li>• LED display of status of motorized parts with built-in <b>motorized field stop</b></li> <li>• <b>XY scanning motorized stage</b> with <b>continuous horizontal rotation</b></li> </ul> |
| <b>Control Panel</b>                      | <ul style="list-style-type: none"> <li>• <b>External TFT/LCD touch screen control monitor &amp; software</b> to control all motorized parts (objective, nose piece &amp; fluorescence turret)</li> <li>• <b>Automatic configuration</b> to switch between bright field, phase contrast and fluorescence applications.</li> </ul>   |
| <b>Illumination</b>                       | <ul style="list-style-type: none"> <li>• Built in <b>Koehler illumination</b> for transmitted light (<math>\geq 20,000</math> hrs life)</li> <li>• <b>High Intensity LED light Source</b> with high colour reproductivity</li> </ul>   |
| <b>Nosepiece</b>                          | <ul style="list-style-type: none"> <li>• <b>Motorized revolving nosepiece</b> with slots for DIC/Polarizing Attachments (at least 6 positions)</li> </ul>  |
| <b>Objectives</b>                         | Colour corrected objectives with magnification, N.A. and transmission (wavelength range of <b>320-1000 nm</b> ) as follows: <ul style="list-style-type: none"> <li>• Plan Apochromat <b>10X</b>, NA 0.45 or higher</li> <li>• Plan Apochromat <b>20X</b> phase contrast, N.A 0.50 or higher</li> <li>• Plan Apochromat <b>40X</b>, NA 0.95 or higher</li> <li>• Plan Apochromat <b>100X</b> oil, NA 1.45 or higher</li> </ul>  |
| <b>Observation Tube</b>                   | <ul style="list-style-type: none"> <li>• Wide field tilting <b>Trinocular</b> ergonomic observation tube</li> <li>• <b>Three way light path distribution</b> (0:100, 50:50/20:80, 100:0; F.N.22mm or higher)</li> <li>• Mounting Adapter to attach the camera</li> </ul>   |
| <b>Condenser</b>                          | <ul style="list-style-type: none"> <li>• <b>Motorized Universal condenser</b> with at least 8 Positions</li> <li>• Motorized freely rotatable polarizer for DIC automation &amp; motorized aperture stop.</li> </ul>   |
| <b>Fluorescence Attachment</b>            | <ul style="list-style-type: none"> <li>• <b>Motorized filter turret</b> with 8 filter cube4s with motorized shutter.</li> <li>• <b>LED fluorescence light source</b> with 20000-25000 hours life time</li> </ul>   |

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|                             | <ul style="list-style-type: none"> <li>Should work for all wavelengths from 365nm-680nm.</li> </ul>  |
| <b>Fluorescence Filters</b> | <p><b>Interference type hard-coated &amp; narrow band filters</b> for better transmittance for the following types of excitation:</p> <ol style="list-style-type: none"> <li>UV (DAPI, Hoechst, Alexa Flour)</li> <li>Blue (FITC, GFP, Cy2)</li> <li>Green (TRITC, Rhodamine, RFT, Spectrum orange)</li> </ol> <p>There should be additional at least 4 more empty positions in the filter cube to add Filters in the future as &amp; when required by the Laboratory.</p>   |
| <b>Camera</b>               | <ul style="list-style-type: none"> <li>Global shutter CMOS with a pixel size of 5.86 nm</li> <li>1/1.2 inch chip, resolution more than 20 million pixel, Peltier cooling</li> <li>Capable of acquiring colour and monochrome image, should have a functionality of capturing the image of complete slide by capturing multiple images and stitching them together.</li> </ul>  |
| <b>Software</b>             | <p>The imaging software should be able to control all functions of the camera and the microscope along with intensity measurement, fluorescence unmixing, co-localization, time lapse recoding, deconvolution software module. The software should be capable of performing multidimensional (XYZt) image acquisition, perform basic measurements, Software for image capturing, Motorized Control of Fluorescence turret &amp; Z Motorized Focus, user experience customization, overlay multiple image, document groups for side by side image comparison, movie playback, Tile image, slice view for orthogonal plane viewing of 3D or time lapse data sets, snap/movie acquisition, Online Deblur / deconvolution should be present, Colocalization, fluorescence unmixing, offline ratio analysis and High dynamic range Imaging, timelapse at specific intervals, Z stack, Multiple image alignment, Instantly create Extended focal images (EFI), Live deblurring, Image processing, Image analysis, Count and Measure Basic, automatically compose word report. Bidder should quote all the modules of the software to meet the above specs.</p> |
| <b>Accessories</b>          | <p>Branded PC with i7 processor, minimum 16GB RAM, Graphics Card with 1 GB RAM, 64 Bit. 2TB HDD Solt for 2x PCIE express Card in mother board, Original Windows 10 OS, DVD RW, 27-inch monitor, keyboard and optical mouse, USB 3.0 &amp; UPS with at least 30 minutes backup</p>  |
| <b>Other requirements</b>   | <ul style="list-style-type: none"> <li>The system should be <b>certified by European CE / UL / ISO 9001/Bureau of Indian Standards</b> for quality assurance.</li> <li>Warranty: 5 years comprehensive warranty including spares/accessories on complete system +5 years post warranty CAMC</li> <li>Microscope, Camera &amp; Software should be mandatorily from the same manufacturer for better compatibility &amp; system itegration</li> <li>Safety: Dust covers and all necessary accessories for the safety and protection of the microscope and their dependent parts.</li> <li>Bidders should provide the web links of the Manufacturer website for compliance with the quoted Microscope, Camera &amp; software</li> <li>On-site installation and technical training has to be provided.</li> </ul>  |

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