



Ref No. INST/12(5)/2019-Pur

Date:28/05/2019

## **CORRIGENDUM**

Reference to NIT no. INST/12(5)/2019-Pur published in national newspapers on 02/05/2019 for purchase of equipment: **High Content Screening and Imaging System with Accessories**. Below mentioned technical points may be read and corrected as per following:-

<b>Present Tender Specifications</b>	<b>Modified Specifications after pre-bid meeting</b>
<p>1. Modes of Imaging: Fluorescence, Brightfield, Phase-contrast</p> <p>2. Detection mode:</p> <p>(a) <b>Monochromators:</b> Fluorescence, Luminescence, UV-Vis Absorbance., Time-resolved Fluorescence</p> <p>(b) <b>Filters:</b> Fluorescence, Luminescence, Time-resolved Fluorescence, Fluorescence polarization, Alpha</p> <p>3. Type that can be used with system: 6-well, 12-well, 24-well, 96-well and 384-well plates, microscope slides, Petri dishes (60mm and 100mm), cell culture flasks (T25).</p> <p>4. Software with features to analyse data such as full image analysis, cell counting, fluorescence intensity measure values.</p> <p>5. The system must be able to perform end point, kinetic, well area scanning, time-lapse, montage, spectral scanning assay.</p> <p>6. The system must be compatible with automated liquid handling system.</p> <p>7. The system must have controlled temperature feature with incubation upto 65°C and condensation control.</p> <p>8. The system must have linear, orbital and double orbital shaking modes.</p> <p>9. Atleast 1 megapixel CCD camera with minimum 16-bit gray scale</p>	<p style="text-align: center;"><b><u>Specification for High Content Screening and Imaging System</u></b></p> <p>1. Modes of Imaging: Fluorescence, Brightfield, Phase-contrast</p> <p>2. <b>Monochromators</b> based Detection mode for Fluorescence, Luminescence, UV-Vis Absorbance and Time-resolved Fluorescence.</p> <p>3. Type that can be used with system: 6-well, 12-well, 24-well, 96-well and 384-well plates, microscope slides, Petri dishes (60mm and 100mm), cell culture flasks (T25).</p> <p>4. Software with features to analyse data such as full image analysis, cell counting/detection, fluorescence intensity measure values and software to control liquid injector.</p> <p>5. The system must be able to perform end point, kinetic, well area scanning, time-lapse, montage, spectral scanning assay.</p> <p>6. The system must be compatible with automated liquid handling system.</p> <p>7. The system must have controlled temperature feature with incubation upto 65°C and condensation control.</p> <p>8. The system must have linear, orbital and double orbital shaking modes.</p>



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<p>10. High power LEDs with wavelength from 360 nm to 750 nm.</p> <p>11. Atleast 4 filter cube with feature for replaceable filter cube</p> <p>12. Removing Nosepiece or Turret with minimum of 5 objectives capacity</p> <p>13. 2.5x (2.75x eff), 4x, 10x, 20x, 40x, 60x Fluorescence objectives must be included 4x, 10x, 20x, 40x phase contrast objectives must be included</p> <p>14. Image assortment rate: (a) For 96 wells, single color, at 4x, 5-8 minutes (b) For 96 wells, 3 colors, at 4x, 10-15 minutes</p> <p>15. System must have Autofocus, auto-exposure, auto-LED intensity adjustable feature.</p> <p>16. The system must have Gas Controller to control CO<sub>2</sub> and O<sub>2</sub>.</p> <p>17. Xenon flash lamp as a Light source and PMT as a detector for both monochromator and filter system in fluorescence intensity mode.</p> <p><b>18. Fluorescence intensity mode:</b> (a) <b>Sensitivity of Monochromators:</b> Top: Fluorescein 2.0 - 2.5 pM; Bottom: Fluorescein 3.5 - 4 pM (b) <b>Wavelength selection:</b> Monochromators - top and bottom Filters- top (c) Wavelength range for monochromators must be 280 – 700 nm and for filters must be 250 – 700 nm.</p>	<p>9. Atleast 1 megapixel CCD camera with minimum 16-bit gray scale</p> <p>10. High power LEDs for Blue (DAPI), Green (FITC) and Red (Texas Red).</p> <p>11. Removing Nosepiece or Turret with minimum of 5 objectives capacity</p> <p>12. 2.5x (2.75x eff), 4x, 10x, 20x, 40x, 60x Fluorescence objectives must be included and 4x, 10x, 20x, 40x phase contrast objectives must be included</p> <p>13. Image assortment rate: (a) For 96 wells, single color, at 4x, 5-8 minutes (b) For 96 wells, 3 colors, at 4x, 10-15 minutes</p> <p>14. System must have Autofocus, auto-exposure, auto-LED intensity adjustable feature.</p> <p>15. The system must have Gas Controller to control CO<sub>2</sub> and O<sub>2</sub>.</p> <p>16. Xenon flash lamp as a Light source and PMT as a detector for fluorescence intensity mode.</p> <p><b>17. Fluorescence intensity mode:</b> (a) <b>Sensitivity of Monochromators:</b> Top: Fluorescein 2.0 - 2.5 pM; Bottom: Fluorescein 3.5 - 4 pM (b) <b>Wavelength selection:</b> Monochromators - top and bottom (c) Wavelength range for monochromators must be 280 – 700 nm</p> <p>18. In Luminescence mode: 2 PMTs detection systems are required for monochromator system.</p> <p>19. Luminescence wavelength range: 280 – 700 nm</p> <p>20. Luminescence sensitivity: for monochromators: 10-20 amol ATP</p> <p>21. Time-Resolved Fluorescence Mode</p>
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<p>19. In Luminescence mode: 2 PMTs detection systems are required for monochromator system and filter system.</p> <p>20. Luminescence wavelength range: 280 – 700 nm</p> <p>21. Luminescence sensitivity: for monochromators: 10-20 amol ATP; Filters: 5-10 amol ATP</p> <p>23. Xenon flash lamp as a light source and PMT as a detector in Fluorescence Polarization mode.</p> <p>24. Fluorescence Polarization Sensitivity: 1.0 - 1.2 mP standard deviation at 0.5nM - 1nM fluorescein</p> <p>25. Detector for Fluorescence Polarization: PMT</p> <p>26. Wavelength range for Fluorescence Polarization: 300 – 700 nm</p> <p><b>27. Time-Resolved Fluorescence Mode</b></p> <p>(a) Xenon flash lamp as a light source</p> <p>(b) Wavelength range for Time-Resolved Fluorescence: Monos: 250 – 700 nm</p> <p>(c) Sensitivity for filters: Europium 40 fM</p> <p>(d) Sensitivity for monochromators: Europium 1000 - 1200 fM with monos</p> <p><b>28. Absorbance Mode</b></p> <p>(a) Xenon flash lamp as a light source and photodiode as a detector</p> <p>(b) Wavelength selection: Monochromator</p> <p>(c) Wavelength range: 240 – 999 nm, with atleast 1-2 nm increase</p> <p>(d) Bandpass: 4 nm (240 – 290 nm), 8 nm (more than 280 nm)</p> <p><b>29. Alpha Detection Mode</b></p> <p>(a) PMT as a detector</p> <p>(b) Light source: 650 - 680 nm laser, 100-120 mW</p> <p>(c) Sensitivity: 100 - 120 attomol LCK peptide.</p> <p><b>30. Warranty:</b> The whole system along with accessories must be with 3 years warranty period.</p>	<p>(a) Xenon flash lamp as a light source</p> <p>(b) Wavelength range for Time-Resolved Fluorescence: Monos: 250 – 700 nm</p> <p>(c) Sensitivity for monochromators: Europium 1000 - 1200 fM with monos</p> <p>22. Absorbance Mode</p> <p>(a) Xenon flash lamp as a light source and photodiode as a detector</p> <p>(b) Wavelength selection: Monochromator</p> <p>(c) Wavelength range: 240 – 999 nm, with atleast 1-2 nm increase</p> <p>(d) Bandpass: 4 nm (240 – 290 nm), 8 nm (more than 280 nm)</p> <p>23. Liquid Injector with two inlet tubes from stock bottles to syringe dispenser along with two 100-250 <math>\mu</math>L syringe. Liquid injector must be with preparing plate, tip priming holder, with 4 bottles and their holder.</p> <p>24. Specialized Table to reduce vibration during imaging.</p> <p>25. Alpha Detection Mode (Optional and system must be upgradable to have Alpha Detection).</p> <p>26. The system must be integrated (both imaging module and detection module within the one integrated system.</p> <p>27. Free of cost re-installation of the equipment in the main Sector-81, INST campus</p> <p>28. Must be supplied with consumables such as (a) 96-Well Cell Imaging Plate with lid, black with clear bottom, Sterile, individually wrapped, 1 pack of 200 plates, (b) 96 wells Perfecta3D hanging drop plate with lid and tray, polystyrene (untreated), sterile, <b>1 pack of 20.</b>, (e) 2 multi-channel pipettes,</p>
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	<p>autoclavable, (i) 5-100microL and (ii) 50-1000 microL.</p> <p>29. <b>Warranty:</b> The whole system along with accessories must be with 3 years warranty period.</p> <p>30. The equipment must be supplied with Desktop computer.</p> <p><b>Specifications for the Desktop</b></p> <p>Screen Size: minimum 21 Inches Display Resolution 1920 x 1080 Processor Type needed: Core i5 7th Gen processor Processor Speed: minimum 2.7 GHz Processor Count: 2 RAM Size: Atleast 8 GB Hard Drive required: 512 GB SSD. Number of USB 2.0 Ports required: 2 Number of HDMI Ports required: 1 Number of Audio-out Ports required: 1 Number of Ethernet Ports required: 1 Number of Microphone Ports required: 1 Operating System required: Windows 10 pro 64-bit Desktop must be supplied with: Keyboard, Mouse, User Guide, Manuals, 1TB external hard drive: 2 hard drive McAfee(R) Multi Device Security 18 month subscription: 3 user <b>3 year Warranty for computer.</b></p>
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Other specifications and Terms and conditions of the tender are remain unchanged.

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