

## TENDER

### MAHAVIR CANCER SANSTHAN, PATNA

Tenders are invited from the eligible bidders for the supply of Fluorescent microscope machine with all attachment and price bids are required through Speed post in favour of "To The Director, Mahavir Cancer Sansthan, Phulwari Sharif, Patna-801505 with in 15 days from the date of publications of notice. Date & time for finalization of rates will be intimated through mail to only those Bidders who will qualify after evaluation.

Tenders must be sent in sealed registered envelopes on which tender no and date of publication must be written on the **left side of envelop in bold letter.**

MCS reserves the right to reject any or all tenders/ quotations at any stage without assigning any reason thereof.

For more details, please visit hospital's website:  
[www.mahavircancersansthan.com](http://www.mahavircancersansthan.com)

  
Director 14/10/19

Mahavir Cancer Sansthan

Specifications as under:-

**Fluorescent microscope with software**

1.	<b>General Specifications</b>	System should consist of upright manual/motorized microscope with epi-fluorescent attachment, Image acquisition unit (digital camera) and workstation computer with data collection & processing software modules.
2.	<b>Manual/ motorized upright microscope</b>	<ol style="list-style-type: none"> <li>1. Manual/motorized Research microscope stand with 10 nm or better Z-resolution, with adjustable height stop and torque of focusing. The stand should have built in TFT monitor to display all microscope parameters and controls including the motorized functions. Enable single click on TFT to change between different contrasts techniques like Bright field &amp; Fluorescence.</li> <li>2. Revolving nosepiece of minimum 4 positions with inward tilt.</li> <li>3. Objectives for i) 10x Plan Achromat, ii) Semi Plan Achromat 40x/0.75,</li> <li>4. iii) Plan Achromat 60/63x/1.4 oil and iv) Plan Achromat 100x/1.4 Oil</li> <li>5. Achromat Aplanatic Condenser with neutral density &amp; Blue Filters.</li> <li>6. Power supply for LED lamp, stabilized for transmitted light path</li> </ol>
3.	<b>Epi-fluorescent attachment</b>	<ol style="list-style-type: none"> <li>1. Three Fluorescence filters.</li> <li>2. A self-aligning mercury illumination source for fluorescence excitation should be offered.</li> </ol>
4.	<b>Digital Camera</b>	12 Bit High resolution Monochrome Cooled Camera, pixel size 5 MP, USB Interface
5.	<b>Data Collection and processing unit</b>	<p>Branded Pentium IV Core 2 Duo, With, 4 GB Ram, DVD Writer, 320 GB HDD, 17" TFT Color Monitor, Multimedia Kit Along With UPS.</p> <p>Software licenses should be institutional, valid for the lifetime of equipment and should include free upgrades whenever upgrades are available.</p>
6.	<b>Karyotyping software</b>	<p><u>Image Acquisition</u></p> <p>It should be integrated to automated stage capable of capturing metaphase from at least 8 slides sequentially unattended.</p> <p>It should have One-click image acquisition of G-, R-, Q-, and DAPI-banded metaphases, or of metaphases with other staining patterns.</p> <p>It should have a Focusing aid for automated best focus acquisition</p> <p><u>Image Enhancement</u></p> <p>It should have image filter tools for banding enhancement, Unlimited undo, processing steps list, and any-time access to original image</p>

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#### Chromosome Separation

- Automated, semi-automated, and manual separation of chromosomes
- Separation of chromosome clusters with the chromosome brush tool
- Image zoom function on the mouse wheel

#### Karyotyping

- Automated and manual assignment of chromosomes
- 4 modes of separating the touched chromosomes and 3 modes for separating the overlapping chromosomes, most of the operation should be controlled by mouse buttons.
- All separated chromosomes should be shown with different colored contour for easy identification
- The software should have more than 100 Karyoforms available for choice. User should be able to easily import any new karyoforms into the system
- Classification of chromosomes in the metaphase
- Ideograms with different resolutions, flexible annotation function & karyogram form editor
- Karyogram comparison and partial karyograms with aberrant chromosomes

7. FISH Software

#### Image Acquisition

It should have one click image acquisition of fluorescence images with up to 6-12 color channels based on automated integration time adjustment

#### Image Enhancement

- Easy automated, or semi-automated, enhancement of images, individually for each color channel, and with unlimited undo functionality.
- User should be able change the size, the stain and/or the intensity of either the complete set of chromosome, or the selected chromosomes.

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-Powerful chromosome banding and signal enhancement filters

Color Display Modes

-Single color channel display as color, grayscale, or inverted grayscale image

-Various pseudo color display modes (modified color mode, merged color mode, primary false color mode) with editable look-up tables

-Comprehensive image annotation with unlimited colors and fonts

-Various measurement functions including fluorochrome profile evaluation

*B. L. Gupta*  
Director (7/10/19)

Mahavir Cancer Sansthan