

**CORRIGENDUM TOWARDS TENDER Automated Laser Scanning Confocal Microscope
No. STR–D1/NIMHANS/2019-20/IND570 Dated:14.01.2020 Modification in specification**

Tender Schedule:

Microscope

| No | Existing Tender Specification | Modified Tender Specification |
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| 1 | Motorized XY scanning stage with universal sample holders for slides, 35/60mm Petri dish, and other live cell sample holders like 6 Well plate, 96 Well plate, mosaic / stitching and multipoint imaging | Motorized XY stage with 20nm or more precision along with universal sample holders for slides, 35/60mm Petri dish, and other live cell sample holders like 6 Well plate, 96 Well plate, mosaic / stitching and multipoint imaging |
| 2 | Two quantity of LED fluorescence light source with min. 25,000hrs life time and trigger controlled by software. | Two quantity of LED based FURA-2 and visible fluorescence light source with min. 25,000hrs life time with software / trigger controlled. |
| 3 | FL Band pass filter sets for DAPI, GFP/FITC, TRITC/Rhodamine, DsRED, Texas Red should be offered. All filters should not have any pixel shift. | FL Band pass filter sets for DAPI, FURA-2, GFP/FITC, TRITC/Rhodamine, DsRED, Texas Red should be offered. All filters should not have any pixel shift. |
| 4 | Monochrome cooled CCD camera with min. 6MP resolution, and min. 20fps controlled by confocal software with multichannel, Z stack, time series, Multipoint, stitching, measurements and statistical analysis. | Monochrome SCMOS camera with min. 4MP resolution, and minimum. 40fps, QE above 80%. |
| 5 | Facility for live cell imaging including stage top Active Incubation system with 100% CO2 input and Temperature, CO2, humidity control and complete safety regulations should be offered –Two quantity of Stage top incubators to be offered. | Facility for live cell imaging including stage top Active Incubation system with 100% CO2 input and Temperature, CO2, humidity control and complete safety regulations should be offered, should have sample adaptors for Chambered slides, Petri dishes 35mm and 50mm and multiwell plates – one quantity of active stage top incubators with controllers and accessories. |

Objectives

| No | Existing Tender Specification | Modified Tender Specification |
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| 1 | 10X Phase (NA 0.3 or better) long working distance | Plan Apo 1x ~ 3x objective with high NA |
| 2 | 20X Phase (NA 0.5 or better) | Plan Fluorescence grade Phase 20X NA 0.5 or better Long working distance Objective |
| 3 | 40X Phase & DIC (NA 0.65 or better) –Long Working Distance | One number of Plan Fluorescence grade Phase 40X NA 0.65 or better Long working distance Objective. Additional One more 40X DIC NA 0.85 or better – Plan apochromat |

Confocal Attachments

| No | Existing Tender Specification | Modified Tender Specification |
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| 1 | The detection system should be capable of both intensities based Confocal imaging and spectral confocal imaging covering entire visible range. Should be available with 2 PMT and Three GaAsP/HyD with QE45% for imaging fluorophores in the complete Vis Spectrum | The detection system should be capable of both intensity based Confocal imaging and spectral confocal imaging covering entire visible range. Should be available with 2 PMT and 2 GaAsP/HyD (additional GaAsP/HyD will be preferred) with QE45% or more for imaging fluoro phores in the complete Vis Spectrum. All the 4 detectors should be spectral in nature. |
| 2 | Independent X, Y galvanometer scanner with 180deg rotation. Resolution capability of scanner should be at least up to 2048X 2048 pixels | Independent X, Y galvanometer scanner with 180deg rotation. Resolution capability of scanner should be at least up to 4096X 4096 pixels |
| 3 | Selectable different scanning speeds with minimum speed greater than 5-7 fps or higher for resolution of 512X512 pixel for fixed samples and higher Speeds of at least 100 fps for 512X16/64 pixel for bidirectional ROI imaging of live samples | Selectable different scanning speeds with minimum speed of 7 fps or more for 512x512 resolution without line skipping or line interpolation for fixed samples and higher Speeds of at least 100 fps for 512X16/64 pixel for bidirectional ROI imaging of live samples |
| 4 | Magnification (from 0.75X to 20X or more) in adjustable increments of 0.1, at least 2009 free scan rotation in 19 increment, at least 18-20 mm or better diagonal scan field in the intermediate image plane, Motorized pinhole | Confocal Zoom / Magnification (from 0.75X or less TO 20X or more) in adjustable increments of 0.1, at least 200 deg free scan rotation, at least 18-20 mm or better diagonal scan field in the |

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| | with a continuously variable diameter, Beam splitters to direct emitted light to Channels, and Suppress Outstanding laser line, Data depth of 8, 12 and 16 bit (selectable) | intermediate image plane, Motorized pinhole with a continuously variable diameter, Beam splitters to direct emitted light to Channels, and Suppress Outstanding laser line, Data depth of 8, 12 and 16 bit (selectable) |
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Control module

| No | Existing Tender Specification | Modified Tender Specification |
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| 1 | | “High resolution Imaging attachment” and its specifications (included in Mandatry Specification instead of Optionals) |
| 2 | “High resolution Imaging attachment” At least 2 fluorophores imaging in simultaneous mode should be possible With the High resolution system. Any dye used for confocal system can be used for imaging without changing sample preparation techniques/protocol. | At least 3 fluorophores imaging in simultaneous mode should be possible With the High-resolutionsystem. Any dye used for confocal system can be used for imaging without changing sample preparation techniques/protocol. Should be able to perform at least 4 fluorophores imaging in simultaneous and / or sequential mode |

Optional

| No | Existing Tender Specification | Modified Tender Specification |
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| 1 | “High resolution Imaging attachment” and its specifications | Moved to mandatory section under Control module |

Additional Requirements

| No | Existing Tender Specification | Modified Tender Specification |
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| 1 | XY manual stage from Gibraltar/Scientificashould be included for mounting upright microscope | XY manual translation stage should be included for mounting upright microscope |

---Sd/-----
DIRECTOR