

PURCHASE ORDER

P.O No. IGIB/5-1NC/102/24-25(413)/830

Dated: 18.11.2024

M/s. DSS Imagetech Pvt. Ltd.,
A-5 Mohan Co-operative Industrial Estate,
Mathura Road, New Delhi-110044

Ref: Qut. No. P.I. No. DSS/DL/SC-0460/2024 Dated: 05.09.2024

The following material should be supplied and Installed on or **before 10.02.2025** as per the terms and conditions mentioned on the back of this order:-

क्र सं N	विवरण/Description of material	मात्रा/ Qty	दर मूल्य/ Unit Rate	कुल मूल्य व मुद्रा/ Amount & Currency (INR)
1.	High Resolution and High Speed Laser Scanning Confocal System Model FV4000 (Breakthrough four SIVIR™ Detectors (with higher photon detection efficiency) along with a Live Cell Imaging System Detailed Specifications as per Annexure 1	01	2,36,00,000.00	2,36,00,000.00
	Sub-Total:			2,36,00,000.00
	Add: GST @ 18%			42,48,000.00
	Grand Total (R/o)			2,78,48,000.00

Total Rs. 2,78,48,000.00 (Rupees Two Crore Seventy Eight Lakh Forty Eight Thousand only)

- Terms of Delivery:** Free Delivery at Store Section of CSIR-IGIB, Mathura Road, New Delhi.
- Warranty:** 5 Years from the date of satisfactory Installation against any manufacturing defects excluding consumables.
- Performance Security:** In the form of a Bank Guarantee, valid 60 days beyond the warranty period may submit an amount equivalent to 5% of the order value.

The delivery date should be strictly adhered to otherwise; the Purchase Order is liable to be cancelled.

Kindly acknowledge Receipt

Yours faithfully,


भंडार एवं क्रय अधिकारी

Stores & Purchase Officer

(For & on behalf of Council of Scientific & Industrial Research)

Terms & Conditions of the Purchase Order

1. **Order Acknowledgement:** The Purchase Order to be called hereinafter as 'Order or Contract' should be acknowledged within 14 days of the date of order, confirming the acceptance of rates and all other conditions of supply. Any variation in specifications or T&C must be intimated at the time of acceptance of order. Non-receipt of order acceptance within the stipulated period may lead to cancellation of the order.
2. **Order Amendment/corrigendum:** Any order amendment/corrigendum made subsequent to this order shall be treated as part of the order.
3. **Mode of Dispatch:** Goods must be dispatched by Road/Rail/Air as specified in the order along with the applicable transportation/freight charges and relevant bill should be submitted with the GR/RR/AWB, wherever applicable.
4. **Intimation of Shipment/Delivery of Material:** Immediately on delivery of goods at CSIR-IGIB Stores Section or dispatch from supplier's premises, the supplier shall notify the purchaser, the complete details of dispatch on Email to purchase@igib.res.in, store@igib.res.in along with the following documents:
 - (a) Copy of Supplier's Invoice
 - (b) Copy of Packing list;
 - (c) Copy of Insurance certificate, if required under the contract;
 - (d) Copy of Road/Railway/Air receipt/Consignment note/Delivery Challan;
 - (e) Copy of Manufacturer's warranty certificate;Original documents shall be submitted by Registered Post/Speed Post or in person to the Stores Section, failing compliance of the above, the supplier will be responsible for any consequent expenses or delays in payment etc.
5. **Delivery Timings:** The material may be arranged to be delivered **ONLY in Stores Section of CSIR-IGIB at Mall Road or Mathura Road as specified in the Order**, between 9.30 am to 12.00 pm and 2.00 pm to 4.30 pm on all working days. CSIR-IGIB follows a week of 5-working days.
6. **Additional charges** such as packing, forwarding, Insurance and GST etc. will not be paid unless specifically mentioned in the order and supported by payees' Receipts or original vouchers.
7. **Packing:** The items ordered should be properly and securely packed in a manner that would be normally acceptable to insurance companies. The consignment should be packed in such a manner that it would withstand all types of transportation hazards until delivery to the consignee.
8. **Packing of Special Material:** Packing of material should be done keeping in view the nature of the material i.e. hazardous, perishable and requiring low temperature or Dry Ice.
9. **Invoice/Bill:** Supplier's Invoice indicating *inter-alia* description and specification of the goods, quantity, unit price, total value and currency of the Invoice, should be submitted at the earliest to the Stores Section of CSIR-IGIB. The Invoice/Bill duly typed and signed should be prepared in Triplicate and submitted for processing payment. It should also be pre-receipted and **affixed with REVENUE STAMP**.
10. **Nomenclature of Items:** The nomenclature used for the item description in the Invoice/Bill as well as the Delivery Note/Challan and packing list etc. should be identical to that used in the order. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s).
11. **The number & date & serial no. of the articles** of the order must be mentioned in the Invoice/Bill & the rate must be in accordance with your original quotation/our Order. Any variation in price & specifications must be intimated before affecting the supply.
12. **GST Number:** Please indicate your GST Number on your Proforma Invoice/Bill. **GST No. of CSIR-IGIB is 07AAATC2716R4ZE.**
13. **Mode of Payment:** Payment of your Invoice/Bill shall, normally, be made within Thirty Days on receipt of article in good working condition through RTGS. Details of your Bank account may be mentioned in your Invoice/Bill.
14. **Inspection of the Material:** The inspection will be carried out at IGIB, Delhi and all damaged or/and unapproved goods shall be returned at your cost and risk and the incidental expenses incurred thereon shall be recoverable from any of your bills. The installation of equipment/instrument where ever necessary will be done by the supplier on free of cost before releasing the payment.
15. **Return of Damaged/Rejected Goods:** All damaged or unapproved goods shall be returned at your cost & risk and the incidental expenses incurred thereon shall be recoverable from any of your Invoice/Bill.
16. **Liquidated Damages/Penalty:** Subject to Force Majeure below, if the supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the order value, as penalty, a sum equivalent to 0.5% of the delivered price of the delayed Goods or unperformed Services or contract value in case the delivered price of the delayed goods or unperformed services cannot be ascertained from the contract, for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of 10%. Once the maximum is reached, the Purchaser may consider termination of the Contract..

The same penalty rate shall be leviable in case of delay in installation.
17. **FORCE MAJEURE:** The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
18. **Printed conditions**, if any, sent along with the quotation shall not be binding, unless specifically agreed by us.
19. **Dispute Settlement:** All disputes will be subject to the Delhi International Arbitration Centre (DIAC), Delhi High Court, New Delhi.

Basic Desc.	EC CODE	Description	Qty	Price in INR
Motorized Inverted Fluorescence Research Microscope Model IX83 double Deck System with Built-in 10nm Z Step Size:				
Inv Motorized Frame, 10nm Z step size, Left side Port. Motorized Nose piece. Smart Touch Panel Controller.	IX83P2ZF	IX83 Inverted 2 deck frame with ZDC port. Touch-panel controller JR6436. Double deck Motorized Frame with Motorized sextuple revolving nosepiece (DIC slider attachable), simple waterproof structure, Stroke: 10.5mm, Minimum increment: step size of 0.01µm , Maximum nosepiece, Movement speed: 3mm/s, Motorized 0:100/50:50/100:0 (Left side port: BI port). SMART Touch Panel Controller Switch observation methods with a tap of the touch panel. A press of a touch panel is all it takes to change observation settings, with automatic controls enabling switching of optical Components, aperture adjustment and exposure. <u>Catch tray under the nosepiece to prevent leakage of spilled liquids.</u> AC adapter DP152500, allen wrench AB7734, hexagonal driver AD8458 (2pcs), transparent sheet for front panel JA8053(2pcs) and indication sticker for U-MCZ JA9973 are included.	1	
Frame fixing plate	IX3-FP	IX3-FP. Frame fixing plate for IX83P2ZF/P1ZF. For 25mm, 50mm, 1 inch, and 2 inches pitch. Foot spacer AD9177(4pcs) is included.	1	
Stand Alone / Remote control unit	U-MCZ	Stand alone control unit with push type buttons for all Motorized controls, Course & fine Z focusing knobs. The combination of the U-MCZ and XY controller make it possible to provide the familiarity of conventional handle operation for confident working even in a darkroom.	1	
cable	U-IFCBL200	Interface cable for CAN communication, 2000mm length Corresponded to RoHS and WEEE regulations	1	
Universal Control unit	IX3-CBH	IX3-CBH. Control box for IX83P2ZF/P1ZF and motorized components. Cable band is included.	1	
cable	C1394A	fire wire cable	1	
Laser interlock	FV30-ILSW	Laser interlock switch for IX83 stand.	1	
Dust Cover	COVER-001	DUST COVER NO.001. SHEET TYPE (1000MM X 1000MM)	1	
LED Transmitted Light illumination				
Transmitted illuminator Pillar	IX3-ILL	Front operation of pillar for condenser movement. Tilttable transmitted pillar tilt mechanism (30° inclination angle, with vibration reducing mechanism), Condenser holder (with with 88mm stroke, refocusing mechanism) , Field iris diaphragm adjustable, 4 filter holders Light source: •12V 100W halogen / LED option.	1	
Filter	45FR	Frost Free filter	1	

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LED transmitted light	IX3-LHLEDC	IX3-LHLEDC Transmitted LED light source with housing. Good color rendering similar to Halogen color.	1	
Laser safety filter pocket	FV12-IXCOV	The transmission filter pocket of IX83 must be covered by FV12-IXCOV for laser safety. Not only MPE but also SPE system must be equipped with FV12-IXCOV.	1	
Laser safety switch	FV31-ILLSW	Laser safety switch for IX3-ILL using with FV4000.	1	
Tilting Observation Tube & Eyepieces:				
Tilting Observation tube	U-TBI90	Tiltable Binocular observation tube, F.N.22, Interpupillary width adjustment range: 50 to 76 mm • Tube tilting angle: 35° to 85° continuously variable • Eye point height (From the center of 45° mount tube to eye point): 159 mm (35°) to 224 mm (85°)	1	
Eye piece	WHN10X	Widefield eyepiece 10X	1	
Eye piece	WHN10X-H	Widefield eyepiece 10X, focusable	1	
Hardware based Z Drift Compensator with IR Light detector for Z focus position auto correction For Long time Imaging for Z drift correction.				
Z Drift Compensator	FV40-ZDC830	Z drift compensator device for FV4000 with IX83P2ZF. The IX3-ZDC uses low phototoxicity IR light (830 nm), to detect the correct focus position as set by the user. One-shot AF mode allows several focus positions to be set as desired for deeper samples, enabling efficient Z-stack acquisition in multi-position experiments. Continuous AF mode keeps the desired plane of observation precisely in focus, avoiding focus drift due to temperature changes or the addition of reagents, applicable for FL DIC PH, compatible with silicon objective & plastic bottom vessels. Cover glass (0.15mm – 0.19mm), Plastic (1.0 – 1.3mm)	1	
Barrier filter for ZDC	45NF830	Notch filter to be installed in the filter pocket of transmission illumination pillar for FV40-ZDC830	1	
New X Line - Objectives 4X, 10x, 20X, 60X oil & 100Xoil. (with extended chromatic correction range from 400 to 1000nm)				
X Apo 4X	UPLXAPO4X	U Plan X Extended Apochromat Objective 4X/0.16, WD 13mm.	1	
X Apo 10X	UPLXAPO10X	U Plan X Extended Apochromat Objective 10X/0.40, WD.3.1mm, with extended chromatic correction range from 400 to 1000nm.	1	
X Apo 20X	UPLXAPO20X	U Plan X Extended Apochromat Objective, 20X/0.80, WD 0.60mm, with extended chromatic correction range from 400 to 1000nm.	1	
X Apo 60X Oil	UPLXAPO60XO	U Plan X Extended Apochromat Objective 60X/1.42, WD 0.15mm (spring, oil), with extended chromatic correction range from 400 to 1000nm.	1	
X Apo 100X Oil	UPLXAPO100XO	U Plan X Extended Apochromat Objective 100X/1.45, WD 0.13mm (spring, oil), with extended chromatic correction range from 400 to 1000nm.	1	
Immersion Oil	IMMOIL-F30CC	Immersion oil 30cc. Low level auto-fluorescence.	1	
Seven Position Motorized Condenser with DIC optics:				
7 position Motorized Universal Condenser	IX3-LWUCDA	IX3-LWUCDA Motorized LWD condense, N.A 0.55, 7 position optical elements (3x30mm, 4x38mm). Mot Turret rotation, Mot aperture stop open/close, polarizer in/out can be controlled through touch panel or software. Allen wrench AW2848(2pcs) and indication plate JA7707 are included.	1	
Cable	U-IFCBL100	U-IFCBF100 100cm CAN cable for IX83 system. This cable is suitable for connection to IX3-LWUCDA on IX83P2ZF/P1ZF.	1	
DIC Slider	U-DICTS	DIC prism slider for transmitted light, with shift mechanism for BFP1 objective	1	
DIC block	IX3-FDICT	IX3-FDICT Motorized Polarized filter block for transmitted DIC. It can be attached on fluorescence turret for IX3 series.	1	
DIC 10X	IX2-DIC10	DIC prism insert for 10X objectives	1	
DIC 20X	IX2-DIC20	DIC prism insert for 20X objectives	1	

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DIC 60X	IX2-DIC60	DIC prism insert for 60X objectives	1	
DIC 100X	IX2-DIC100	DIC PRISM FOR 100X OBJECTIVES	1	
Eight Positions Motorized Fluorescence Turret:				
Eight Position Fluorescence turret	FV30-RFACA	Motorized EIGHT position fluorescent mirror turret for IX83 microscope.	1	
Cable	U-IFCBL15	Interface cable for CAN communication, 150mm. Corresponded to RoHS & WEEE regulations	1	
LED Fluorescence Light Cooled pE300 White with Liquid Light Guide:				
LED Fluorescence illuminator	pE-300-W-L-SB-xx-xx	LED ILLUMINATION SYSTEM- MULTI BAND. FOR USE WITH 3MM LIQUID LIGHT GUIDE. SB FILTER CONFIGURATION. INCLUDES LIGHT SOURCE, CONTROL POD, POWER SUPPLY AND POWER CABLE PLUG	1	
Light Guide	PE-1906	LIQUID LIGHT GUIDE (1.5M LONG) 3MM DIAMETER	1	
Sharp Cutt off, Narrow Band Pass Fluorescence Filters for Fillin/DAPI, GFP/ FITC ,& TRITC / RFP Texas Red/C3 and CY5 dyes..				
DAPI/Fillipin filter	U-FUNA	Mirror Unit for fluorescence microscopy, narrow band UV excitation with bandpass barrier, exciter filter BP360-370, dichroic beamsplitter DM410, barrier filter BA420-460, including plastic case AR1924	1	
GFP/FITC filter	U-FBNA	Mirror unit for fluorescence microscopy, narrow band Blue excitation (with bandpass barrier), with exciter filter BP470-495, dichroic beamsplitter DM505 and barrier filter BA510-550, including plastic case AR1924	1	
TRITC/RFP/ Texas Red/CY3 filter	U-FGNA	Mirror unit for fluorescence microscopy, narrow band Green excitation (with bandpass barrier), with exciter filter BP540-550, dichroic beamsplitter DM570 and barrier filter BA575-625, including plastic case AR1924 Corresponded to RoHS regulation	1	
CY5 filter	XXXX	ET620/60x(EX), T60lpxr (BS), ET700/75m (EM), 25mm dia fl filters. Size: Exciter (x) = 25mm, Emitter (m) = 25mm, Beamsplitter = 26x38x1mm	1	
Empty Filter Cube	U-FF	Empty Filter Block	1	
Marzhauser XY Motorized Encoded Stage -SCAN Plus 120x80 / TANGO 2 / IX83				
Mot XY Stage for IX3 microscope	00-24-579-0000	SCAN Plus 120x80 - 2 mm , Encoded Motorized Scanning stage for Inverted microscope range of travel 120 x 80 mm, 2 mm lead screw pitch flat, ergonomic design with rounded corners, stationary connecting cables between controller and scanning stage, incl. stage insert for 1 slide 3" x 1" p/n 00-29-411-8010 with adaptation for Olympus IX53/73/83 Rev. 01	1	
Tango 2 DT Controller	00-76-151-1802	TANGO 2 DT Encoded Controller, Desktop version for two (2) stepper motors, 1,25 A, includes USB- and RS-232 interface with data cables, power supply cable and user-friendly software tool "SwitchBoar	1	
Joystick	00-76-200-0820	2-Axes-Joystick for TANGO Controllers, sensitive, manual positioning 4 freely programmable function keys control panel : membrane keyboard incl. cable to connect to TANGO controller.	1	
Cable	00-76-202-0808	Motor cable 2m, 1.+2.axis	1	
Universal stage insert	00-29-411-8150	Stage insert IM universal for samples with Ø 20 to 74 mm diameter and standard slides , 75 x 26 mm as well as 76 x 52 mm Size: 160 x 110 x 8 mm	1	
Multiwell plate insert	00-29-411-8020	Stage insert IM for multi well plates Size: 160 x 110 x 8 mm	1	

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Tokai Hit Stagetop CO2 Incubator with built-in Gas Mixer, Temperature & Humidity Control:

Stage Top Incubator for control Temp., Hum., and CO2. Objective Heater for oil objectives to maintain temperature.	STXG-WSKMX-E	Time-Lapse Model for providing optimal sample temperature, humidity and CO2 environment for live cell imaging - Controller: With built-in gas mixer for 100% CO2 gas cylinder use and mixes 100%CO2 gas with surrounding air automatically and supplies the gas (5.0-20.0% CO2 concentration) to the Chamber - Multi-well plate and small vessels use - 35mm & 50mm/60mm included - Top Heater Heating Method is applied for temperature distribution - Internal Humidifier for humidity more than 90% - Chamber has 3 access ports for perfusion/media exchange IN and OUT, for drug administration and for temperature sensor - Continuous Current Control for preventing Z drift caused by heating regulation at minimum - Including Objective Heater.	1	
Dish attachment	STX-CSG	DISH ATTACHMENT AND FIXING LID FOR SLIDE GLASS, CHAMBER SLIDE AND CHAMBERED COVERGLASS	1	
Software.	Software	Tokai Jit Incubator Parmeter data logger Software	1	

Hamamatsu High Resolution Scientific CMOS Camera Model Orca Flash LT Plus:

sCMOS camera	CI1440-42U40	Hamamatsu Orca-Flash 4.0 LT Plus The Peltier Cooled (10o C below ambient) digital Scientific CMOS (sCMOS) camera with pixel array of 2048 (H)×2048 (V) Pixel size of 6.45 micron, peak QE 82% (500-600nm) .Full well capacity 30 000 electrons, with a maximum frame rate of Approx 35-40 FPS at full resolution and full FOV, read noise of 1.5 electrons (rms) 0.9 electrons (median), dark current of 0.6 electrons. Dynamic range of 33 000:1, 16 bit digitization. The camera should have built in trigger.	1	
Adaptor	U-TV1XC	Centrable C-Mount adaptor for Camera attachemnt	1	

HYBRID-Resonant Scanner with Silver Coated Mirrors, inbuilt Laser Power Monitor. Includes 2 Highly Sensitive Detectors, Cooled SiPM, (Broadband SiVIR 2CHs Detectors: All 4 quoted detcetors are Multipixel Photon Counting Detectors with PDE approx 55%.

<u>2 CH BSD Detetors & Resonant-Hybrid Scanner includes XY galvanometer scanner set and X-resonant Y galvanometer scanner.</u> with inbuilt Laser Power Monitor.	FV40-HSU-P	<u>Package of a hybrid scanning unit and a power supply unit and a 2ch broadband spectral detector unit by silicon photomultiplier with spectral sensitivity upto 400-900nm, sensitivity 55% PDE, 2nm linear Spectral resolution. The extremely low noise SiVIR detector has high dynamic range low dark current. The continuously variable band pass filters allows to seamless adjustment of spectral bandwidth from either side of wavelengths with patented transmission diffraction gratings with highest tranmission efficiency. The systems includes secondary dichroic mirror turret. The Hybrid scanner includes XY galvanometer scanner set and X-resonant Y galvanometer scanner set.</u> All scanners equipped with silver-coated mirror. IR coating optic support laser wavelength 400-1600nm. Corresponded to WEEEand RoHS regulations. <u>Resonant Scanning</u> Resolution: 512 x 32 to 1024 x 1024 pixels , <u>Scanning Speed:</u> 30 fps at 512 x 512, 438 fps at 512 x 32, 15fps at 1024 x 1024 , <u>Optical Zoom:</u> 0.90X - 8X in 0.01X increments , <u>Scanning Mode:</u> XT, XZ, XY, XZT, XYT, XYZ, XYλ, XYZT, XYλT, XYZλT , ROI Scanning, Rectangle Clip, Line. <u>The Galvo scanner includes XY galvanometer scanner set.</u> All scanners equipped with silver-coated mirror. IR coating optic support laser wavelength 400-1600nm. Galvo Scanning Speed : 16fps. F.N.20mm. Laser power monitor :inbuilt. Scanner with total Resolution upto 4096x4096 pixels, Scan Zoom 1X-50X, F.O.V. 20mm, Countinuously varibale Pinhole and an EVEN Spectral Resolution of 2nm throughout the spectrum.	1	
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Software for System Control, Imaging & Analysis. : Flouview Advanced Acquisition & Analysis Software.

FV Main Advance control, capture, Analysis software	FV40S-SWPMS	Advance Package software for FV4000. This software include <u>FV40S-SW main software & motorized stage control license</u> , including License certificate sheet. for Multidimensional image acquisition, Visulation, Advanced 3D Image Reconstuction, FRET & FRAP acquisition, stiching. With advanced 3D rendering from Z stack Flexible Ratiometric photoactivation, photo manipulation aquisition, features like configuration of microscope, LASER power, Scanning Module, System self-test with calibration, automatic setting of system according to selection of different dyes, Acquisition of spot, line, frame, Z-Stack, wavelength stack, time series, and all combination of X, Y & Z with time, Ratio, averaging & Summing, selection of scan area, real ROI scan, online ratio imaging, Localized Bleach, ROI Bleach, FRAP using of different LASER lines for different ROI, Changing of Excitation lines during acquisition of multi fluorescence, sequential acquisition of image stacks with spectral information, spectral unmixing capability, presentation of captured image in XY, Orthogonal, 3D section, 2.5D for time & line scan. Real time ratio analysis, Real time Intensity profile of multi dimensional images.	1	
Multi-Well Module	FV40S-WELNVG	Software Licenece for Multiplate Navigation function on FV main software.	1	
Analysis Software	CS-DI-V4.3-EL	cellSens Dimension Full - Analysis Software 2D Deonconvolution, 3D restoration / volume rendering / voxel view & slice view, overlay multiple images, co-localization analysis, batch conversion / processing, contrast base auto focus, Dynamic ROI for on line anlysis, 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, timelapse at specific intervals, Z stack, Manual Multiple image allignment (MIA), Image analysis, Count and Measure (Phases/regions), automatically compose word report.	1	
3D Deconvolution Software:				
3D - Deconvolution Software:	CS-S-DE-VF-EL	3D Deconvolution Software Module for offline Image Deconvolution.	1	
DVD	CS-DVD-V4.3.1	cellSens DVD V4.2including Installation DVD Disc and Install Manual	1	
FRET & FRAP Analysis Software:				
FRET & FRAP, Ratio Analysis	CS-S-LSA-VF-EL	Life Science Analysis Option for Dimension . Performs FRET analysis includes all the three analysis modules such as Ratio, Acceptor photobleaching and Sensitised Emission	1	
Super Resolution Imaging Module with XY resolution 120nm and Z Resolution less than 350nm.				
Olympus Super Resolution Module	FV40S-OSR	Super resolution license (FV40S-SW). Super resolution Imaging license. To be used with SiLVIR detectors. Olympus Super Resolution Technology. Olympus' widely applicable super-resolution method requires no special fluorophores, and can work for a wide range of samples in combination with a large selection of superior optics and high sensitivity detectors. Ideal for colocalization analysis, sequential or simultaneous acquisition of 2 fluorescent signals can lead to resolution of approximately 120 nm, nearly doubling the resolution of typical confocal microscopy. Operation is simple, with minimal training requirements.	1	

Stand for above 2 BSD Detectors & scanning unit.	FV30-STIMP	Stand for scanning unit used in combination of SU/HSU and IX83.	1	
Two Additional SilVIR detector with very low noise & higher photon detection efficiency than traditional GaAsP-PMT detectors..				
Two BSD SilVIR Detector for Addl 2 CH Imaging with approx 55% PDE.	FV40-BSD	2CH High Sensitivity-Spectral detector unit SilVIR, Silicon based detector from Visible to NIR with Superior S/N ratio to GaAsP. Brings Weak Fluorescence to Life and Exceptionally Wide Dynamic Range Imaging, "HDR photon counting" which is game changing quantification, Easy to use and reproducible experiment with TruSpectral Technology The Cooled SiPM, 2 channels (Broadband SilVIR 2CHs) High Sensitivity SpectralDetector (HSD) employs the same VolumePhase Holographic (VPH) technology as the SD, with Peltier cooled SiPM Detectors and a high PDE of >55% and Motorized adjustable slit Detection wavelength range: 400 – 900 nm, selectable wavelength bandwidth: 1 - 100 nm, wavelength resolution: 2 nm. The detector has HDR photon counting (Linearity 2,000 photon / 2 µs), Average, Accumulation. Another 2 Spectral detectors can be added for high performance detection of upto 6 channels simultaneous detection.	1	
Transmitted Light Detector:				
Transmitted Detector	FV40-LETD	Transmitted detector unit for FV4000 used with IX3-LHLEDC. Integrated with transmitted light photomultiplier detector & LED lamp, motorized switching.	1	
Laser Combiner with 6 SOLID STATE Lasers under AOTF Control : 405nm, 445nm, 488nm, 514nm, 561nm & 640nm Lasers.				
Laser Combiner with LD Lasers 405, 488, 561 & 640	FV31-MCOMB-P	Main laser combiner including AOTF system, and LD lasers (VBYP) and these beam combining optics. Ultra fast intensity modulation with individual laser lines, additional shutter controller continuously variable (0.1% - 100% with 0.1% increments), Visible LD Lasers 405nm 50mW, 488nm 20mW, 561nm 20mW & 640nm 40mW. Automated ND Laser Range Selector 2 full ranges of laser power with automated ND filter selector (0.01-10%, and 1%-100%). Additional shutter controller continuously variable 0.1% - 100% with 0.1% increments. Single motorized pin hole. The system is upgradable onsite upto 10 Laser from 405 to 785 nm covering the entire visible to NIR Range with high power lasers. This package includes LD Lasers 405, 488, 561 & 640.	1	
Power supply unit	OBIS6LREMOTE	6 line power supply unit for OBIS LD lasers including laser safety key.	1	
PCI interface board	FV40-PCIB	PCI-e interface board for data transfer in confocal laser scanning microscope. Corresponded to WEEE and RoHS regulations.	1	
1394a cable	DP21-DKT	1394a connection cable between desktop PC and DP21- CU or DP26-CU.	1	
S-Combiner	FV40-SCOMB	Sub laser combiner unit has 3 LD port for FV31-MCOMB.	1	
LD Diode Laser 445nm	OBIS445-75LX	75mW 445nm Laser diode head for CFP	1	
LD Diode Laser 514nm	OBIS514-40LX	40mW 514nm Laser diode head for YFP	1	

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Evident/Olympus TruSight Super Resolution Image reconstruction Software to work in Combination with FV40-OSR.				
Tru Sight Super Resolution Module	CellSens TruSight	Constrained Iterative (CI) algorithms provide sharper contrast and dynamic range in less time with GPU processing Algorithms designed for FV4000/FV3000 and Olympus Super Resolution (OSR) images provide outstanding images. A Dedicated 3D, 4D Rendering Software, 3D Imaging, reconstruction and Deconvolution . The constrained iterative deconvolution function improves the resolution, contrast, and dynamic ranges of confocal images obtained by the system. Module to deliver 120 nm XY Resolution and less than 350nm Z resolution.	1	
OLYMPUS PROPRIETARY ARTIFICIAL/DEEP LEARNING MODULE TruAI:				
AI/DL Module	CS-S-DL-VF-EL	Deep Learning Option for cellSens including Licenser certificate file (digital file, Made in Germany). TruAI Segmentation Analysis Powered by Deep Learning Not only provides high-quality image acquisition, but also accurate image analysis. Object detection and segmentation from complex and challenging images with much higher accuracy than traditional image analysis methods. Further analysis such as measurements based on segmentation results. High-precision detection and segmentation based on deep-learning technology delivers efficient and reliable analysis results. Optimal for cell counting and geometric measurements, like area or shape, without phototoxicity. Less than 1-second processing time per position. TruAI technology is: A more reliable and accurate analysis tool than conventional methods. Applicable for challenging images, such as transmitted light and poor SNR fluorescence images. Applicable for variety of sample types, including cell organelles and large MIA images.	1	
Offline Analysis Software				
Analysis Software	CS-DI-DT-V4.3-EL	cellSens Dimension DT- Analysis Software 2D Deconvolution, 3D restoration / volume rendering / voxel view & slice view, overlay multiple images, co-localization analysis, batch conversion / processing, contrast base auto focus, Dynamic ROI for on line analysis, 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, timelapse at specific intervals, Z stack, Manual Multiple image alignment (MIA), Image analysis, Count and Measure (Phases/regions), automatically compose word report.	1	
Advance PC/ Work Station with NVIDIA GPU, Monitor etc				
Workstation	HP/DELL	OS: Windows 11 pro, 64 Bit English version CPU: Intel Xeon Silver or Gold series (12 core) or better RAM: 64 GB DDR4 or better 1st : SSD 512x GB M.2. 2nd: SSD/HDD M.2 4TB Optical Drive: Super Multi drive, upto x 16 speed. LAN: 10/100/1000 network interface x 2 Extension Slot: 2 PCI express 3.0 x 16 slots (one slot for Graphics) Graphics : NVIDIA Quadro RTX A4000 or better Monitor : Large 30" monitor or 2 x 27" (or better) monitors LCD TFT (OLED 4K x 4K or better) Suitable online UPS to support the complete system (not less than 5 KVA) with minimum 30 minutes back-up time (Latest PC as per recommended of Featary will be provided for smooth functioning of the system)	1	

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32" Monitor 4K.	Benq 32"	32-Inch (80 Cm) LCD 3840 X 2160 Pixels 4K Uhd Monitor, Bezel-Less, HDR, 95% Dci P3, AMD Freesync, 2Wx2 Speakers, 60Hz, Brightness Intelligence Plus, Hdmi, Displayport, USB Type-C.	1	
Fire wire PCI Express card	Fire wire PCI Express card	StarTech 3 Port, 1394 PCI Express Firewire Card, IEEE 1394. (Part No. PEX1394B3)	1	
RS232 Card	PCI Express RS232	Startech 2 Port native PCI express RS232 serial adapter card with 16550 UART PXX2S553	1	
Power Cable	ITE00044	Power cord	6	
Offline Analysis Workstation				
Workstation	HP Z4G5	HP PC with i7 processor, 512 GB SSD (with OS), 4 TB HDD, DVD R/W. Gigabit Ethernet, USB 2.0/ 3.0, Fire wire Card. Operating System : Windows 10 Pro- 64 Bits (English edition), USB Key board, USB Mouse including 16GB NVIDIA RTX A 4000.	1	
32" Monitor 4K.	Benq 32"	32-Inch (80 Cm) LCD 3840 X 2160 Pixels 4K Uhd Monitor, Bezel-Less, HDR, 95% Dci P3, AMD Freesync, 2Wx2 Speakers, 60Hz, Brightness Intelligence Plus, Hdmi, Displayport, USB Type-C.	1	
5KVA UPS for FV4000 Confocal				
ON LINE UPS	UPS	5 KVA on line UPS with 30 minutes back up for offered Confocal System	1	
Advanced Antivibration Table with Air compressor for Confocal System:				
Antivibration Table with air compressor	LTO-BM-90-90	Anti-Vibration Table with Bilz Imported Optical Bread board. Optical breadboard Table Top Size: 900 mm x 900 mm x 100 mm Top skin: 5 mm thick magnetic Bottom skin: 5 mm thick magnetic Core: Honeycomb core made of 0.26 mm thick sheet. Flatness of the top: +/- 0.1mm over 300mm x 300mm area Mounting holes: M6 tapped holes on top on 25 mm grid. Side walls: Compressed wooden particle boards to dampen acoustic vibrations Low Noise Air Compressor (1 Nos) 0.75 HP	1	
CO2 Cylinder for Stage Top CO2 Incubator				
Cylinder for Incubator	CO2 Cylinder	15-16 Liters Co2 Cylinder with Regulator	1	
Table	Table	Computer Table	1	