

Global Tender for the “Supply and Installation of a High Content Fluorescent Microscope with continuous live-cell imaging capabilities”

This is a FRQ (Request for Quotation) from the Indian Institute of Science (IISc), Bangalore, for the “Supply and Installation of a High Content Fluorescent Microscope with continuous live-cell imaging capabilities” at the Department of Developmental Biology and Genetics, Indian Institute of Science, Bangalore.

IISc is India’s best research institute and DBG is multidisciplinary research department with nationally and internationally recognised research activities and faculty.

1	Section 1	Bid Schedule	
2	Section 2	Eligibility Criteria	As specified by IISc
3	Section 3	Terms and Conditions	As specified by IISc
4	Section 4	Specifications	Technical specifications
5	Section 5	Technical Bid	Annexure 1: Bidder details
			Annexure 2: Declaration regarding experience of bidder
			Annexure 3: Declaration regarding clean track record of the bidder
			Annexure 4: Declaration of acceptance of tender
			Annexure 5: Terms and conditions. Details of item quoted
6	Section 6	Commercial bid	Quotation with Price, Technical specifications of the Equipment

Section 1 - Bid Schedule

1	Tender No	IISc/Purchase/DBG/SSV/2024-25
2	Tender Date	08.01.2025
3	Item Description	Supply and Installation of a High Content Fluorescent Microscope with continuous live-cell imaging capabilities
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Chairperson's Office Department of Developmental Biology and Genetics Division of Biological Sciences Building Indian Institute of Science Bengaluru – 560 012
6	Last Date & Time for submission of tender	29.01.2025
7	For further clarification	office.dbg@iisc.ac.in

Section 2 – Eligibility Criteria

Prequalification criteria:

1. The Bidder's firm should have existence for a minimum of 3 years. (Enclose Company Registration Certificate)
2. Preference to local bidders is not mandatory.
3. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
4. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.
5. Only the Original Equipment Manufacturer or their authorized representatives shall participate in the bid.
6. The order will be placed only on the bidder who participated in the bid

Section 3 – Terms and Conditions

A) Submission of Tender:

1. All documentations in the tender should be in English.
2. Tender should be submitted in two envelopes (two bid system).
 - a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications. The proposal should contain a compliance table with 4 columns in addition to the ones in the technical requirements table that has been included with this RFQ below. The compliance table should include all the items in the same order and format. **The first column should describe your compliance in a “Yes” or “No” response. If “No” the second column should state the extent of deviation. The “third” column should state the reasons for the deviation if any.** The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirements table below (suppliers who include any indication of prices in the technical bid will be automatically disqualified).
 - b. Commercial Bid (Part-B) – Indicating item wise price for the items mentioned in the technical bid, **as per the format of quotation provided in tender**, and other commercial terms and conditions. **The commercial bid should be broken up to the maximum extent possible into separate items with a cost against each (in particular the optional items) to enable better comparison of price for various configurations across the bidders.** As an option, **please provide itemized cost for any *suggested* accessories/add-ons that may enhance the usability, capability, accuracy or reliability of the tool.** Vendors are encouraged to quote for as many add-ons as their tool portfolio permits.
3. The technical bid and price bid should each be placed in separate sealed covers, superscripting on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.
4. The SEALED COVER superscripting tender number / due date should reach Chairperson’s Office, Department of Development Biology and Genetics, Indian Institute of Science Bengaluru – 560 012 , India on or before due date mentioned in the tender notice. In case the due date happens to be a holiday, the tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.
5. All queries are to be addressed to the person identified in “Section 1 – Bid Schedule” of the tender notice.

6. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).
7. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
8. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
9. The technical proposal must include references of at least 3 previous installations done in India within last 5 years of similar equipment from the equipment manufacturer. Please provide the names and contact addresses of the three independent referees so that the committee can contact them independently to get a reference.
10. Incomplete bids will be summarily rejected.

B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

C) Validity of the Offer:

The offer shall be valid 90 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.

4. The award of the contract will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
 - a. Non-submission of complete offers.
 - b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).
 - c. Receipt of bids in open conditions.
6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.
7. No revision of the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. Lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, operation, preprocessing and post processing, optional items, recommended spares, warranty, annual maintenance contract.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Warranty:

The complete system must be under a warranty period of 5 years including free support for technical issues in installation and operation of the equipment. Visiting costs, and accessories/spares involved in the repair and replacement of defective components within the warranty period shall be borne by the supplier. If the instrument is defective, it must be replaced or rectified at the bidder's cost within 30 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

G) Annual Maintenance Contract:

An annual / comprehensive maintenance contract for a period of 2 years post warranty may be provided on completion of the warranty period as an option.

H) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.

3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

I) Delivery, Installation and Training:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered, installed and made functional within 90 days from the date of receipt of the purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed. The bidder should also arrange for technical training for the users.

J) Payment Terms:

The payment will be determined after mutual discussions with the successful bidder.

K) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to the bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

L) Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

M) General:

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension of the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is, however, advised not to furnish superfluous information.
3. The bidder may visit the installation site before submission of tender, with prior intimation.
4. All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
5. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.

Section 4 – Technical Specifications for a **Fully Automated inverted fluorescence high content microscope for live cell imaging with hardware-based focus system**

Completely enclosed fully automated and fully Motorized inverted microscope platform with integrated darkroom facility. The system should be user friendly, smart and should have automatic sample recognition functionality that detects all relevant vessel features while loading the on Slides, 35 mm dishes, T25 flask and Multi well plates with high throughput analysis. The system should be able to detect both glass as well as plastic labware and automatically adjust and adapt the optics for optimized imaging. It should automatically detect vessel bottom material (glass/COC1 and PS 2), vessel bottom thickness and vessel skirt height. It should automatically calibrate individual plates, i.e. well diameter and distance, plate length, height and rotation.

Observation mode:

1. Brightfield, Fluorescence, Phase Gradients and Oblique Contrast in a closed box (Create Dark Room Facility) with motorized revolving nosepieces with motorized aberration correction facility.
2. With a small footprint, built-in anti-vibration mechanism, and shielded optics, the system should work almost anywhere. Direct installation of the unit on a lab table to image in parallel with other experiments, even in a brightly lit room.

Gradient Contrast:

3. A unique gradient contrast should work with all objectives and enables to capture sharp images with pseudo 3D morphology images in a wider area and with higher contrast than the conventional method.
4. This unique contrasting method should not much affected by the meniscus, container lids, and water droplets, and it can be used with both glass- and plastic-bottom dishes and multi-well plates for all the objectives.
5. Gradient contrast also enables to image through the plastic lids of Petri dishes and multi-well plates, reducing the risk of contamination when imaging the cells.
6. Transmitted Light techniques must use IR LED (700 nm and above) for Bright field, Phase gradient contrast and Obliquity contrast to avoid bleaching and photo toxicity.

Navigator Control:

7. After sample placement, all the operation must be controlled through the computer and must be automated, Smart AI based sample Navigator & detection. No manual intervention must be used.
8. Automatic detection of vessel bottom material (glass/COC and PS 2), vessel bottom thickness and vessel skirt height. Automatic calibration of individual plates, i.e. well diameter and distance, plate length, height and rotation. automatic generation of focus maps for microwell plates, Automatic focus finding and automatic focus stabilizing facility should be available as standard.

Acquisition mode:

9. Single Frame, Movie, Time Lapse, Z-stack, and stitching (fluorescence multi-color imaging possible for all).

Motorized Nosepiece & Magnifications:

10. The system should have magnification range from 2.5X to 100X.
11. All the objectives should be plan Apochromat in nature for high quality imaging needs.
12. Magnification range with N.A. and Working distance should be atleast 2.5X/0.35 W.D. 5 mm or better, 5X/0.35 W.D. 5mm or better, 10X/0.35 W.D. 5mm or better, 10X/0.7 W.D. 2.2 mm or better, 20X/0.7 W.D. 2.2 mm or better, 40X/0.7 W.D. 2.2 mm or better, 25X/1.2 W.D 0.84mm, 50X/1.2 W.D 0.84mm and 100X/1.2 W.D 0.84mm,
13. All the magnifications above 10x should have motorized correction collar for automatic and adaptive optical adjustments for various samples.

Automatic focus (AF):

14. Automatic image focusing with dedicated IR LED based Focus Drift compensation device for long term live cell imaging along with Software based image focusing for respective Objectives with one click operation, based on

acquisition of Macro images with 0.5X magnification changer. Motorized focusing with automatic control through software and Manual process.

Sample holder:

15. Sample holders for Glass slides (3 slides), 35 mm dish (3 dishes), microplates, and sample holder for T25 flask, Labtek chambers, 6 well plate holders etc.

Transmitted illuminator & Universal Condenser:

16. Built-in Köhler illumination for transmitted light, high color rendering LED
17. Motorized Universal Condenser: WD 45 mm, including Automated Phase ring alignment as per Objectives, Bright Field, Gradient Contrast and Oblique Contrast. With Motorized Aperture stop.
18. High-speed IR-LED (725 nm) offering low phototoxicity should be quoted for transmitted light applications.

Motorized Stage and Z:

19. Motorized XY stage with automatic control through Stage control software. Stage should have travel range of 300mm X 140mm and resolution 0.1 micron.
20. System should have motorized Z with step resolution 25nm or better.

Motorized Magnification changer:

21. System should have motorized optical magnification changer 0.5x, 1x and 2x or more.

High resolution, High Efficiency Monochrome camera (1 no):

22. High performance microscopy monochrome CMOS camera with number of pixels: 3216 (H) x 2208 (V) = 7.1 Mega Pixels or more Pixel Size: 4.5 μm x 4.5 μm or better Chip Size: 14.5 mm x 9.9 mm or more with 17.6 mm diagonal size. Detectable spectral range should be at least 350 nm to 1000 nm with peak QE: 78% @ 520 nm or more. Full Well Capacity: Approx. 25,000 e-. Frame Rate 3216 x 2208 >30 fps (High Res mode) should be possible. Adjustable Digitization: 8, 12, 14 bit, or a camera with better specifications than those listed above.

Fluorescence illumination and long-life LED Light Source with Fiber Optics Cable:

23. System should be equipped with Apochromatically corrected fluorescence beam path for high quality fluorescence imaging. It should have at least 5 LED wavelengths to cover the entire UV, VIS and far-red spectrum to allow imaging with the following fluorophores: DAPI, FITC, TRITC, YFP, mCherry and Cy3, Cy5. Bandwidth of excitation wavelength should not be more than 10 nm.
24. Appropriate band pass filters for both excitation and emission for all wavelengths should be provided.
25. It should have adaptive Fluorescence Illumination to excite only the imaging field in order to avoid bleaching and phototoxicity.
26. Quote at least three filter sets as desired:
 - a. Multipass filter set with emission compatible with DAPI, YFP, GFP, mCherry, Cy5
 - b. Triple filter set with emission bands CFP, YFP, DAPI, mCherry
 - c. Triple filter set with emission bands DAPI, TRITC, FITC
 - d.
 - e. **Dedicated Advanced Software for Operation and Image Analysis:**
27. Main operation license, (load the sample, close the lid, and click a button). The software's clear layout and streamlined workflow help you start image acquisition with little training imaging of multichannel, stitching, time-lapse and Z-stack acquisition in any combination to fit your research protocol.
28. Live View Window: For basic operations such as switching objectives, observation methods, and live acquisition.
29. Stage Navigator: Control XY movement and stitching settings.
30. Macro Image: Display the entire holder.
31. Well Navigator: Image acquisition settings. Simple and effective solution for experiments using well plates. • Customize capture patterns using multiple observation points for each well.

32. Process Manager: Multi-dimensional acquisition settings.
33. Camera Control: Various camera settings such as exposure time with microplates.
34. Microscope Control: Operation and settings for each microscope device. Fast, Efficient Data Management. Recall Image Acquisition Settings.
35. Z-Stack • Acquire multiple images in the Z direction to accommodate thick samples. • Create all-in-focus images with just a few clicks.
36. Time lapse: Continuously record changes in a live cell or entire culture over time.
37. 3D Deconvolution Software Package for Deconvolution, Count and Measure
38. Complete license for post analysis of images.
39. Software must have functions for creating flexible and intelligent image acquisitions workflows with various tools. It should allow to configure inhomogeneous acquisition experiments: time series, multitime series, Z-stacks, tiles/multiposition images and channels in any order. It should also allows automatic and targeted acquisition of objects of interest by scanning the overview image following automatic detection of objects of interest and then detailed imaging of the detected objects in desired high magnification. The software must have the functionality to respond to changes in the sample, the microscope or external triggers during an image acquisition and to modify an ongoing acquisition via powerful Python scripts.
40. Automatics 2D and 3D volumetric analysis tools must be provided in the offer.

Environmental control:

41. Environmental control should be designed to install inside the box of the above Microscope stage and it allows to maintain optimal Temperature, Humidity and CO2 inside the microscope. For 100%CO2 gas Cylinder use, Dish Attachments & Dish Fixing Lids for multi well-plate, 35mm/60mm disc, glass slides and chamber slides, Temperature sensor with extension wire, Software for experiment condition record, Gas tube Syringe.
42. The system should provide the access of Perfusion experiment along with exogeneous reagent dispensing during live cell experiments and should have dispensing unit and perfusion holder along with the system.

Computer system:

43. Latest High end workstation with Intel Xeon W5-3425 processor or better. 128 GB RAM, 24GB Graphics card, SSD drive 4 TB, HDD at least 20 TB, 31" Monitor with resolution 3840 x 2160 Pixel, Brightness: 400 nits, Contrast: 2000:1
44. Additional Off Site license for image analysis and computer.

Additional Requirements:

45. System should have UV disinfection facility for live cell imaging purpose.
46. System should have integrated channel for direct liquid handling for samples and have option for reagent dispenser.
47. Built-in Anti-vibration mechanism.
48. Upgradable for robotic integration and confocal imaging
49. Features in the quotations should be substantiated with proper company catalogue/brochure/manual/website.
50. Warranty: 5 years

A. Training and demonstration

Training in usage of the machine (hardware and software) must be demonstrated by the successful bidder at bidder's cost to the end users at IISc, Bangalore. The vender should be responsible for the complete system installation, functioning maintenance, and training by trained personnel. Bidders should clearly specify the after sales service/application support capabilities without any additional cost.

Section 5 – Technical Bid

The technical bid should furnish all requirements of the tender along with all annexures in this section and submitted to

Chairperson's Office
Department of Developmental Biology and Genetics
Division of Biological Sciences Building
Indian Institute of Science Bengaluru – 560 012

Annexure-1:

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder

Sl. No	Items	Details
1.	Name of the Bidder	
2.	Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)	
3.	Registration No/ Trade License, (attach attested copy)/TIN No	
4.	Registered Office Address	
5.	Address for communication	
6.	Contact person- Name and Designation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder

Name
Designation, Seal

Date:

Annexure-2

Declaration regarding experience

To,

Indian Institute of Science Bengaluru – 560 012

Ref: Tender No:

IISc/Purchase/DBG/SSV/2024-

25 Dated: 03.01.2025

Supply and Installation of a

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has----- years of experience in supplying and installing multimode plate readers.

(Signature of the Bidder)

Printed Name

Designation, Seal

Date:

Annexure-3:

Declaration regarding track record

To,
Chairperson's Office
Department of Developmental Biology and Genetics
Divisional Biological Sciences Building
Indian Institute of Science Bengaluru – 560 012

Ref: Tender No:
**IISc/Purchase/DBG/SSV/20
24-25 dated 03.01.2025**

Supply and installation of a High Content Fluorescent Microscope with continuous live-cell imaging capabilities

Sir/Madam,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I'm competent officer in my company / firm to make this declaration.

Or

I declare the following

Sl.No.	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding the period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully
(Signature of the Bidder)

Name
Designation, Seal

Date:

Annexure – 4:

Declaration for acceptance of terms and conditions

To,
Chairperson's Office
Department of Developmental Biology and Genetics
Divisional of Biological Sciences Building
Indian Institute of Science Bengaluru – 560 012

Ref: Tender No:
**IISc/Purchase/DBG/SSV/20
24-25 dated 03.01.2025**

Supply and Installation of a High Content Fluorescent Microscope with continuous live-cell imaging capabilities

Sir/Madam,

I have carefully gone through the Terms & Conditions as mentioned in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)
Name
Designation, Seal

Date:

Annexure – 5:

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications
- f. Remarks

Instructions to bidders:

1. Bidder should provide technical specifications of the quoted product/s in detail.
2. Bidder should attach product brochures along with technical bid.
3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

Section 6 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1.	Essential items noted in the technical specification				
1.a	... (details of essential items)				
1.b	...				
2.	Optional items noted in the technical specification				
2.a	... (details of essential items)				
2.b	...				
3.	Accessories for operation and installation				
4.	All Consumables, spares and software to be supplied locally				
5.	Warranty (1 years)				
6.	AMC / CMC				
7.	Cost of Insurance and Airfreight				
8.	FOR/CIP/CIF IISc, Bengaluru				

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to Chairperson's Office
 Department of Developmental Biology and Genetics
 Division of Biological Sciences Building, Indian Institute of Science, Bangalore-12

Section 7 – Checklist

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted:

1. Sealed Envelope “A”: Technical Bid

1. **Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:**
 - a. **Annexure 1: Bidders details**
 - b. **Annexure 2: Declaration regarding experience**
 - c. **Annexure 3: Declaration regarding clean track record**
 - d. **Annexure 4: Declaration for acceptance of terms and conditions**
 - e. **Annexure 5: Details of items quoted**
2. **Copy of this tender document duly signed by the authorized signatory on every page and sealed.**

2. Sealed Envelope “B”: Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.