

Notice Inviting Tender

Supply and Installation of Spinning disk confocal Super Resolution system with live imaging

Tender No. DBT-IISC/DBS-02/SPINNING DISK/2019-20



INDIAN INSTITUTE OF
SCIENCE

**DBT-IISc Partnership Program Phase-II at IISc
Division of Biological Sciences
Indian Institute of Science
Bangalore – 560012**


26/7/19

ASSOCIATE PROFESSOR
Department of Molecular Biology and Genetics
Indian Institute of Science
Bangalore - 560012

July 2019



**Project Investigator
DBT-IISc Partnership Program Phase-II at IISc**

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SECTION 1 – BID SCHEDULE

1	Tender No	DBT-IISC/DBS-02/SPINNING-DISK/2019-20
2	Tender Date	27 th July 2019
3	Item Description	Supply and Installation of Spinning disk confocal Super Resolution system with live imaging
4	Tender Type	Two Bid System a) Technical Bid (Part-A) b) Commercial Bid (Part-B)
5	Place of Submission and tender opening	Principal Investigator, DBT-IISc Partnership Program Office, Biological Sciences, Indian Institute of Science, Bangalore – 560012, India
6	Last Date & Time for submission of tender	16 th August 2019, 15:00 hrs
7	Date of opening of technical bids	19 th August 2019, 16:00 hrs
8	For further clarifications	Principal Investigator, DBT-IISc Partnership Program Office, Biological Sciences, Indian Institute of Science Bangalore- 560012, India Email: deepaksaini@iisc.ac.in with copy to vijaylakshmi@iisc.ac.in 080-2293 3371

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. The Bidder should have qualified technical service personnel for the instrument(s) based in India.**
- 3. If the Bidder is a local distributor/dealer/Agent, it is mandatory to attach authorization certificate along with the bid from the original equipment manufacturer.**
- 4. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4**
- 5. 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.**

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, check list for conformance to specifications, format in which the price bid is quoted without the actual prices (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
- 3. The technical bid and price bid should each be placed in a sealed cover, superscripting on both the envelopes the tender no. and the due date and Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No & Due Date.**
- 4. The SEALED COVER superscripting tender number / due date & should reach The Chairman, Centre for Product Design and Manufacturing, Indian Institute of Science, Bangalore – 560012, India on or before due date mentioned in the tender notice. In case due date happens to be 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 communications are to be addressed to- The Principal Investigator, DBT-IISc Partnership Program Office, Biological Sciences, Indian Institute of Science, Bangalore– 560012, India.**
- 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 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. 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 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 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 in 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 for installation, operation, pre-processing 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) Mode of Shipment:

In case of foreign bidders, the consignment must be airlifted, insured and transported to the Bangalore International Airport (CIP/CIF). Necessary custom clearance will be done by IISc, Bangalore, from Bangalore International Airport.

G) Customs clearance:

The IISc, Bangalore will furnish the necessary papers for the import of items into India, necessary custom duty exemption certificate and other supporting documents to facilitate the import of the items will be provided.

H) Warranty:

The complete system is to be under warranty period of minimum 5 years (year wise breakup value should be shown in the commercial bid) including preventive maintenance, free supply of consumables, spare parts and data analysis software from the date of functional installation. If the instrument is found to be defective, it has to be replaced or rectified at the cost of the bidder 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.

I) Annual Maintenance Contract:

An annual maintenance contract for a period of 2 years post warranty should be provided on completion of warranty period.

J) 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.

K) Delivery and Installation:

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 120 days from the date of receipt of 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.

- M) Payment Terms:**
The payment will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder.
- N) Statutory Variation:**
Any statutory increase in the taxes and duties subsequent to 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.
- O) 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.
- P) General:**
1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in 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

A) Technical Specifications of Motorized Inverted Fluorescence Research Microscope:

S.No.	Specification	Essential/Desirable
1	Fully Motorized Inverted Fluorescence Microscope for BF/DIC/Fluorescence preferably with touch pad for controlling motorized components of the microscope	Essential
2	Tiltable binocular / trinocular eyepiece	Essential
3	Programmable fast motorized X-Y scanning stage including sample holders for slides, 35/60 mm Petri dish, labtek chambers and multi well dishes with multipoint, tile and mosaic imaging software (capable of fast 6D imaging).	Essential
4	Fast stage insert for z stack imaging with travel range of 100 microns or better.	Essential
5	Hardware Based Focus Drift compensation for long term live cell imaging application is mandatory.	Essential
6	LED illumination for Fluorescence catering to the following fluorophores to be included.	Essential
7	Band pass fluorescent filters for DAPI, GFP, Cy3, CFP, YFP and Cy5.	Essential
8	Motorized 6 position DIC nosepiece, Motorized Condenser NA 0.55 or better with modules for DIC, minimum 6 position fluorescence turret for accommodating fluorescent filters for sample visualization and camera based imaging.	Essential
9	High precision Z-focus drive with step size of 25 nm or better.	Essential
10	Plan super apochromat objectives - 40x/1.40 oil, 60/63x/1.40 oil immersion, 100X/1.40 oil, and confocal compatible lenses for 10X/0.40, Long Distance 20X/0.40 (WD 8 mm or better), 20X/0.80. Separate multi immersion objective, 25x/30x/40x with correction collar for imaging 3D objects. Plan apochromat 60x/1.5 NA for super resolution imaging corrected for 400-1000nm.	Essential (lenses with equivalent features with justification will be considered)
11	Automated shift free DIC accessories for all objectives.	Essential
12	Setup for long term live cell imaging including Incubation system with Temperature, CO ₂ , humidity control. The parameters for incubation system should be controlled by a software preferably with ability to record the Temperature, CO ₂ level and RH at periodic intervals of ~10 minutes or lesser.	Essential

A.1) Spinning disk superresolution confocal imaging unit with high sensitivity detector.

A.1.1) Super Resolution Imaging

S.No.	Specification	Essential/Desirable
1	Fully automated and motorized Spinning disc and Super resolution or equivalent attachment with suitable high sensitive sCMOS Camera/Detectors and Emission filters for the entire Vis Spectrum. The system should deliver REALTIME/ONLINE super resolution of TWO colours with a minimum XY resolution of 120nm nm or better. The scanhead should have a built in 10 position fast emission filter wheel with emission filters for DAPI, FITC, CFP, YFP TRITC, mCherry and Cy5 for fast two colour imaging. The system should be able to work in SR mode. Widefield bypass.	Essential
2	Detection based on high sensitivity sCMOS detectors. The sCMOS camera should be with minimum 80% Quantum Efficiency, 6.5µm x 6.5µm Pixel Area, 2048 x 2048 array - 4.2 Megapixel, < 3 e Median , 45,000e- Pixel Full Well, 35,000:1 Dynamic Range, 43.5fps @ 16-bit, 63fps @ 11-bit, air cooled upto -20 degree or better. Should be useable in widefield mode as well.	Essential
3	Rapid imaging of at least 2 fluorophores in the SR system. Emission filters options for the entire Vis spectrum should be available. All laser lines for confocal Imaging should be useable for imaging in SR mode. Appropriate beam splitters and emission filters for GFP/RFP, CFP/YFP and GFP/mCherry should be offered for two color fast sequential Imaging . Suitable Primary DMs (405/488/561/640 and 445/514/640) in the scan head should be offered. Quote for dual band pass (GFP/RFP) emission filter for faster two colour excitation sequential imaging .	Essential

A.1.2) Laser modules with AOTF control. All solid state lasers only. Minimum requirements.

S.No.	Specification	Essential/Desirable
1	405 nm, 488 nm, 565 nm, 590 nm and 633 nm (or equivalent). All visible & UV lasers should be connected to the scan head and should be controllable for fast laser switching and attenuation. Laser lines should be 25 mW for better	Essential
	Additional Lasers can be quoted as optional item separately.	Desirable

A.1.3) System control and Imaging Software:

S.No.	Specification	Essential/Desirable
1	Software should be capable of controlling every component of the system including microscope, incubation system, confocal setup, super resolution module. Should be compatible for 3D, 4D, 5D and 6D imaging (X,Y,Z,t,multi color, multi point). Image stitching in co-ordination with XYZ stage	Essential
2	FRET imaging as well as Quantitative data analysis capability.	Essential
3	Advanced 3D image reconstruction with rendering from a Z-stack image series including 3D Blind deconvolution capability in widefield, confocal and Super resolution deconvolution modalities (for all the three PSFs).	Essential
4	Co-localization and histogram analysis with individual parameters.	Essential
5	Image acquisition and processing tools for SR images with various modes of visualization tools.	Essential

A.1.4) Computer and Monitor:

S.No.	Specification	Essential/Desirable
1	State of the art 64 bit control computer with minimum Intel Xeon 6 Core Processor, DDR RAM 48 GB or more; primary HDD – 512 GB SSD or better; secondary HDD: 4 TB SATA upgradable to 8 TB or better, DVD, SuperMulti SATA +R/RW, Graphics : dedicated dual display with minimum 2 GB internal RAM, Gigabit Ethernet, Win 7 Ultimate 64 bit or better, USB 2.0/ 3.0, Fire wire. Large 30" LED monitor. OR equivalent for controlling the entire system Suitable secondary analysis computer and complete analysis license package to be included.	Essential

B) Accessories:

The bidder should supply the below items along with the machine:

S.No.	Specification
1.	<p>Suitable vibration isolation table with silent automated compressor pump as follows:</p> <p>Anti Vibration Optical Table (should have a free space of ~ 1 feet or more surrounding the equipment post installation and functioning) comprising of the following:.</p> <p>a) Optical Table Top: Optical bread board with stainless steel skin (~ 5 mm or more) with M6 individually sealed threaded holes with > 4 inch thick honeycomb based vibrational damping.</p> <p>b) Auto Leveling Pneumatic Vibration Isolators with compressor and leveling valves. The isolators together with table top should present a workspace that is 3 feet from the floor.</p>
2.	True Online UPS system with isolation transformer for the entire system with minimum 1 hour backup
3.	100% CO2 Cylinders (2 nos) with regulators and automatic cylinder switching module

D) Training and demonstration:

Training on 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.

E) The system should be supplied directly by the principal manufacturer as turn-key system and no on-site assembly or third party assembly will be entertained. All the components in the system viz. microscope, lasers, confocal unit and camera should be warrantied by the primary manufacturer.

Section 5: Technical Bid

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

**The Principal Investigator,
DBT-IISc Partnership Program
Biological Sciences
Indian Institute of Science
Bangalore – 560012, India**

Annexure-1:

Details of the Bidder

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

Details of the Bidder

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

Signature of the Bidder

Name

Designation, Seal

Date:

Annexure-2:

Declaration regarding experience

To,

**The Principal Investigator,
DBT-IISc Partnership Program
Biological Sciences,
Indian Institute of Science,
Bangalore – 560012, India**

Ref: Tender No: XXXXXXXXX

Dated: XXXXX

Supply and installation of Spinning disk confocal Super resolution system with live imaging

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 Laser Router for Metal Cutting System of this class.

(Signature of the Bidder)

Printed Name

Designation, Seal

Date:

Annexure-3:

Declaration regarding track record

To,

**The Principal Investigator,
DBT-IISc Partnership Program
Biological Sciences,
Indian Institute of Science,
Bangalore – 560012, India**

Ref: Tender No: XXXXXXX

Dated: XXXXX

Supply and installation of Spinning disk confocal Super resolution system with live imaging

Sir,

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 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,

**The Principal Investigator,
DBT-IISc Partnership Program,
Biological Sciences,
Indian Institute of Science,
Bangalore – 560012, India**

Ref: Tender No: XXXXXX

Dated: XXXX

Supply and installation of Spinning disk confocal Super resolution system with live imaging

Sir,

I've 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:

Company Name	
Product Name	
Part / Catalogue number	
Product description / main features	
Detailed technical specifications	
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:

SI No	Description	Catalogue Number	Quantity	Unit Price	Sub Total
1	Instrument price				
2	Accessories for operation and installation				
3	All Consumables, spares and software to be supplied locally				
4	Warranty (5 years)				
5	Cost of Insurance and Airfreight				
6	CIP/CIF IISc, Bengaluru				

SI No	Description	Quantity	Unit Price	GST	Total

Addressed to:

**The Principal Investigator,
DBT-IISc Partnership Program
Biological Sciences,
Indian Institute of Science,
Bangalore – 560012, India**

SECTION 7 – CHECK LIST

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

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

1. Envelope “A”: Technical Bid

a) Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:

Annexure 1: Bidders details

Annexure 2: Declaration regarding experience

Annexure 3: Declaration regarding clean track record

Annexure 4: Declaration for acceptance of terms and conditions

Annexure 5: Details of items quoted

b) Copy of this tender document duly signed by the authorized signatory on every page and sealed.

2. Envelop “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. & Due Date.