

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN REPRODUCTIVE HEALTH
(Indian Council of Medical Research)
J.M. Street, Parel, Mumbai 400012, Maharashtra.

NOTICE INVITING E-TENDER (NIT)

No. NIRRH/ST/2021-2022/05

June 16, 2021

Online electronic bids (e-tenders) under two-cover system are invited from reputed foreign / Indian manufacturers or authorized agents thereof for supply, installation and commissioning of following **Scientific Equipment / Instrument:**

- 1. Gel Documentation System for Nucleic acids and Proteins**
- 2. -80°C Deep Freezers (3 Nos.)**
- 3. Tissue Embedder**
- 4. Triple Gas Incubator with Hypoxia Chamber**
- 5. Real Time PCR Machine [2 Nos.]**
- 6. Automated Microbial Cell Counter**
- 7. Air Decontamination Unit**
- 8. Microtome**
- 9. (Portable) Fluorescence Microscope**
- 10. Refrigerated Centrifuge**
- 11. Control Rate Freezer with Liquid Nitrogen Container**
- 12. Bright Field Microscope with Software for Karyotyping**

Tender document can be viewed and downloaded from ICMR-National Institute for Research in Reproductive Health (ICMR-NIRRH) websites www.nirrh.res.in or www.icmr.nic.in and Central Public Procurement Portal (CPPP) at <https://eprocure.gov.in/eprocure/app>.

The bid is to be submitted **online only** on <https://eprocure.gov.in/eprocure/app> (**Tender ID: 2021 ICMR 634191**) up to last date and time of submission of bids. The hard copy of tender document is not applicable.

1.0 Brief Details and Critical Date of Tender:

1.1 Brief Details of Tender:

S. No.	Item	Description
1	Name of the Scientific Equipment / Instruments	1. Gel Documentation System for Nucleic acids and Proteins 2. -80°C Deep Freezers (3 Nos.) 3. Tissue Embedder 4. Triple Gas Incubator with Hypoxia Chamber 5. Real Time PCR Machine [2 Nos.] 6. Automated Microbial Cell Counter 7. Air Decontamination Unit 8. Microtome 9. (Portable) Fluorescence Microscope 10. Refrigerated Centrifuge 11. Control Rate Freezer with Liquid Nitrogen Container 12. Bright Field Microscope with Software for Karyotyping
2	Scope of Contract	Supply, Installation, Testing, Commissioning and Training.
3	Mode of Tendering	e-Procurement System (Open Tender)
4	Tender Reference Number	NIRRH/ST/2021-2022/05
5	Cost of Bidding Document	Nil
6	Estimated Cost	Rs.2.00 crores (Rupees Two Crores only)
7	Earnest Money Deposit (EMD)	Bid Security Declaration
8	EMD Exemption Allowed	Not Applicable
9	Required Validity of Bid	90 days from the last date of online submission.
10	Tender Inviting Authority	Director ICMR-National Institute for Research in Reproductive Health Jhangir Merwanji Street, Parel Mumbai 400012, Maharashtra. Tel.No. 022-24192060 / 24192134

1.2 Critical Dates of Tender:

S. No.	Particulars	Date & Time
1	Publish Date and Time	16 June 2021, 05.00 PM
2	Document Download Start Date & Time	16 June 2021, 05.05 PM
3	Document Download End Date & Time	08 July 2021, 04.30 PM
4	Online Bid Submission Start Date & Time	17 June 2021, 09.00 AM
5	Online Bid Submission End Date & Time	08 July 2021, 05.00 PM
6	Last Date of Submission of EMD and other Offline Supporting Documents at Director ICMR-National Institute for Research in Reproductive Health Jehangir Merwanji Street, Parel Mumbai 400012, Maharashtra.	08 July 2021, 12.30 PM
7	Bid Opening Date & Time a) Technical Bid (along with offline documents) b) Price Bid	12 July 2021; 3.00 PM To be intimated separately.

- 2.0 The details/ information regarding online tendering i.e. Registration on Central Public Procurement Portal (CPPP), Preparation of Bid and Submission of Bid are available in the Tender Document and as well as on CPPP under 'Bidders Manual Kit'.
- 3.0 The Director, ICMR-NIRRH reserves the right to reject any or all tenders and shall not be bound to assign any reason for rejection.

Sd/-
DIRECTOR
ICMR-National Institute for Research
in Reproductive Health
Parel, Mumbai 400012,
Maharashtra.
Phone: 022-24192060 / 24192134
Email: stores@nirrh.res.in

NOTE: Tender with Even Reference Number dated 07th June, 2021 is cancelled

ई.सी.एम.आर. जे.सी.एम.आर. इन्स्टीट्यूट फॉर रीप्रोडक्टिव्ह हेल्थ रिसर्च

ICMR-NATIONAL INSTITUTE FOR RESEARCH IN REPRODUCTIVE HEALTH

इन्डियन काउन्सिल ऑफ मेडिकल रिसर्च

Indian Council of Medical Research

जे.एम. स्ट्रीट, पारेल, मुंबई - ४०० ०१२

J.M. Street, Parel, Mumbai - 400 012.

फोन नंबर: ०२२-२४१९२०६०/२४१९२१३४ क्वीरी नंबर: ०२२-२४१३९४१२

Telephone No. 022-24192060/24192134 Fax No. 022- 24139412

TENDER DOCUMENT

Tender Reference No. NIRRH/ST/2021-2022/05 dated 16th June, 2021

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Chapter 1: INSTRUCTIONS TO BIDDERS

1. The Director, ICMR-National Institute for Research in Reproductive Health (ICMR-NIRRH) here in after referred to as the 'Purchaser' will receive bids for 'Supply, Installation, Testing, Commissioning & Training of following Scientific Equipment / Instrument as per required specifications:
2. The bids will be received, opened and evaluated online in electronic form through Central Public Procurement Portal (CPPP) i.e. <https://eprocure.gov.in/eprocure/app> [Link to reach at site is also available at ICMR-NIRRH websites, www.nirrh.res.in and www.icmr.nic.in. Bid shall be prepared and submitted in accordance with instructions contained in this section.
3. This section of the bidding document provides the information necessary for Bidders to prepare online responsive bids, in accordance with the requirements of the Purchaser. It also provides information on online bid submission, opening, evaluation and contract award.
4. INSTRUCTION FOR ONLINE BID SUBMISSION:
 - The Bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the Bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements/ instructions and submitting their bids online on the CPP Portal.
 - REGISTRATION:
 - (i) The Bidder is requested to visit the link 'Bidders Manual Kit' at Central Public Procurement (CPP) Portal (URL: <https://eprocure.gov.in/eprocure/app>). Bidders are required to enroll on the e-Procurement module of the CPP Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link "Online Bidder Enrolment", which is free of charge.
 - (ii) As part of the enrolment process, the Bidder will be required to choose a unique user name and assign a password for their accounts.
 - (iii) During enrolment/ registration, the Bidder should provide the correct/ true information including valid email-id & mobile no. All the correspondence shall be made directly with the Contractors/ Bidders through email-id provided.
 - (iv) For e-tendering, possession of valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) is mandatory which can be obtained from SIFY/TCS/nCode/e-Mudra or any Certifying Authority recognized by CCA India on e-Token/Smart Card.
 - (v) Upon enrolment on CPP Portal for e-tendering, the Bidder has to register their valid Digital Signature Certificate with their profile.
 - (vi) Only one valid DSC should be registered by a Bidder. Bidders are responsible to ensure that they do not lend their DSCs to others, which may lead to misuse and should ensure safety of the same.

- (vii) Bidder can then log into the site through the secured login by entering their user ID/ password and the password of the DSC/ e-Token.

- SEARCHING FOR TENDER DOCUMENTS

- (i) There are various search options built in the CPP Portal, to facilitate Bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the Bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- (ii) Once the Bidders have selected the tenders they are interested in, they may download the required documents/ tender schedules. These tenders can be moved/ saved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the Bidders through SMS/ email in case there is any corrigendum issued to the tender document.
- (iii) The Bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification/ help from the Helpdesk.

- PREPARATION OF BIDS:

- (i) Bidder shall go through the tender document carefully to understand the documents required to be submitted as part of the bid. Bidders shall note the number of covers in which the bid documents have to be submitted, the number of documents – including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- (ii) Any pre-bid clarifications if required, then same may be obtained online through the tender site, or through the contact details given in the tender document.
- (iii) Bidders should get ready in advance the bid documents to be submitted as indicated in the tender document/schedule in pdf/xls/rar/zip/ jpg/ dwf formats. If there is more than one document, they can be clubbed together using zip format. Bid documents may be scanned with 100 dpi with black and white option, which helps in reducing size of the scanned document.
- (iv) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the Bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area as per tender requirements while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

- SUBMISSION OF BIDS:

- (i) Bidder should log into the site well in advance for bid submission so that he/ she upload the bid in time i.e. on or before the bid submission time.

- (ii) Bidder should prepare the Bid Security Declaration, in lieu of Earnest Money Deposit (EMD) as per the instructions specified in the tender document. The same should be posted/ couriered/ given in person to the concerned official, latest by the last date of bid submission or as specified in the Notice Inviting Tender (NIT)/ tender documents.
- (iii) While submitting the bids online through already downloaded/ saved tender in 'My Tenders' folder, the Bidder should read the terms & conditions (of CPP portal) and accepts the same in order to proceed further to submit their bid.
- (iv) Bidder should digitally sign and upload the required bid documents one by one in respective 'Tender Cover' as indicated in the tender document.
- (v) Bidders should note that, the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception and have understood the complete tender document and are clear about the requirements of the tender document.
- (vi) Bidders are requested to note that each document to be uploaded for the tender should be less than 2 MB. If any document is more than 2 MB, it can be reduced through zip/rar and the same can be uploaded. For the file size of less than 1 MB, the transaction uploading time will be very fast.
- (vii) Utmost care shall be taken for uploading "Schedule of Quantities & Prices" and any change / modification of the price schedule shall render it unfit for bidding. Bidder shall download the Schedule of Quantities & Prices i.e. **BOQ_XXXXX.xls**, in XLS format and save it without changing the name of the file. Bidder shall fill their respective rates in figures (financial quotes) and other details (such as name of Bidder) in light blue background cells, thereafter save and upload the file online in financial/price bid (Finance) cover without changing the filename. No other cell should be changed. Bidders are requested to note that they should necessarily submit their financial bids in the 'Finance' cover in the format provided and no other format is acceptable. If the template of "Schedule of Quantities & Prices" file is found to be modified/ tampered by the Bidder, the bid shall be rejected. The Bidders are cautioned that uploading of financial bid elsewhere i.e. other than in Financial cover shall result in rejection of the tender.
- (viii) Bidder should submit their bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the Bidder at the eleventh hour.
- (ix) After the bid submission (i.e. after clicking "Freeze Bid Submission" in the portal), the Bidder should take print out of system generated acknowledgement number, and keep it as a record of evidence for online submission of bid, which will also act as an entry pass to participate in the bid opening.
- (x) Bidder should follow the server time being displayed on Bidder's dashboard at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system.

- (xi) All the documents being submitted by the Bidder would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers / bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- **ASSISTANCE TO BIDDERS:**
 - (i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority or the relevant contact person indicated in the tender.
 - (ii) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24 x 7 CPP Portal Helpdesk. Toll Free Number 120-4200462; 120-4001002; 120-4001005; 120-6277787.

KEY INSTRUCTIONS for BIDDERS:

The following 'FOUR KEY INSTRUCTIONS for BIDDERS' must be assiduously adhered to:-

- i) Obtain individual Digital Signature Certificate (DSC or DC) well in advance of tender submission deadline.
- ii) Register your Organization on CPPP well in advance of tender submission deadline.
- iii) Get your Organization's concerned executives trained on CPPP well in advance of tender submission deadline.
- iv) Submit your bids well in advance of tender submission deadline on portal (There could be last minute problems due to internet timeout, breakdown, etc.) While the first three instructions mentioned above are especially relevant to first-time users of portal, the fourth instruction is relevant at all times.

Note: Electronic procurement system will not allow any Bidder to place their bids after the expiry of scheduled date & time. The Purchaser shall not be responsible for any delays/problems related to bandwidth, connectivity etc., which are beyond the control of the ICMR-NIRRH/ CPPP.

Chapter 2: GENERAL AND SPECIAL TERMS & CONDITIONS OF TENDER

1. Complete bid document can be viewed and downloaded from ICMR-NIRRH websites www.nirrh.res.in or www.icmr.nic.in and Central Public Procurement (CPP) Portal <https://eprocure.gov.in/eprocure/app>.

2. The bidder should be manufacturer of the equipment/system of required specifications as specified in the Schedule of Requirements including Specifications and Allied Technical Details.

OR

The bidder should be authorized dealer / distributor of the manufacturer of quoted brands of the item of required specifications as specified in the Schedule of Requirements including Specifications and Allied Technical Details to quote on behalf of their manufacturer, in case manufacturer does not quote directly. In such a case, the authorized dealer shall have to submit relevant 'Authorized Dealership' certificate from the manufacturer showing validity period.

3. In case a dealer is participating in a tender on behalf of one manufacturer, he is not allowed to participate / quote on behalf of another manufacturer in this tender or in a parallel tender for the same item. All such bids with same make / manufacture will be rejected.

4. **The total cost of the equipment / instrument / system must come with inbuilt 3 years' comprehensive and 2 years' non-comprehensive warranty, at no extra cost (Financial Bid).**

5. The maximum response time during the warranty would be 48 hrs. 0.1% of FOB Cost as penalty per week till the warranty would be applicable.

6. The bidder must certify that the item will be kept under Annual Maintenance Contract at least for a period of **5 years** after the expiry of the Warranty Period and the necessary consumable and non-consumable parts shall be made available for carrying out preventive maintenance and remove the defects.

7. The reasonable Annual Maintenance Service Charges (**both Comprehensive and Non-Comprehensive**) after the end of 5 years of warranty must be fixed / indicated in the **Financial Bid**, separately. ***In case the same could not be submitted in the financial bid. The same would be obtained by the ICMR-NIRRH at a later stage.***

8. Submission of solvency certificate of appropriate value not less than 40% of value of equipment / system quoted for, issued by any nationalized/scheduled bank.

9. Submission of self-attested copy of PAN in the name of firm/ proprietor.

10. Submission of self-attested copy of GST registration certificate with valid GSTIN.

11. The Bidder should not have been banned / de-listed / black listed / debarred from business by Government of India or any State Governments of India.
12. The Bidder shall bear all costs associated with the preparation and submission of his bid, and the Purchaser will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
13. Earnest Money Deposit (EMD) / Bid Security: Tender should be accompanied by "Bid Security Declaration" wherein the participating agency should undertake '**That if they withdraw or modify their bids during period of validity etc., they will be suspended for the time, as may be decided by the competent authority of the ICMR-NIRRH from its future tenders**'. The same is to be submitted on the letter head, duly self-attested.
14. The offers should be kept valid for acceptance for a period up to **30th September, 2021**. The **last dates for receipt of online e-tenders is 05.00 PM on 08th July, 2021**, which would be **opened online on 12th July, 2021 at 03.00 PM**.
15. The successful tenderers will have to enter into an Agreement and submit Bank Guarantee equivalent to 3% of the purchase / contract cost (towards security and performance) which will be retained for a period of sixty days beyond the expiry of the Warranty period.
16. The complete work of supply, installation, testing and commissioning should be completed within the period of **4-6 weeks** from the date of receiving the confirmed order.
17. The prices quoted shall be firm for the duration of contract period. Institute is exempted from the levy of Central excise duty and Custom duty at reduced rate as applicable to Central Government against form/certificate. The rate of G.S.T. must be clearly indicated wherever chargeable. It will be deemed that No Taxes are payable by us if such numbers are not indicated. The GST Number of the Institute is 27AAEAT4818Q1ZS and is eligible for reduced rate of GST under GST Notification No.43/2017, 45/2017 and 47/2017. **(Financial Bid)**
18. The prices should be quoted in the form provided in the tender document only and nowhere else. Bid/offer prices shown anywhere except in **Financial Bid** will be rejected **(Financial Bid)**.
19. The payment terms would be governed by the extant Government of India Rules and Regulations.
20. Conditional offers will not be accepted and are liable to be rejected without any further reference.

21. The successful bidder should undertake to extend the validity of the Bank Guarantee, if offered as security deposit and performance guarantee, in case, the tendered work is delayed beyond the validity period of the Bank Guarantee.
22. The bidders must provide complete circuit diagrams, wiring diagrams, component layout diagrams, Service/Maintenance manuals and component identification catalogue along with equipment free of charge in case order is placed to them. Also supplier to provide Technical Maintenance/Service training at manufacturing unit or principal company to our Technical Officer Instrumentation. All Expenses for travel, Accommodation etc. to be borne by the supplier or company to whom order is placed
23. The bidder shall prepare the bid and submit the bid online on "Electronic Tendering System" in following manner:

- **ONLINE SUBMISSION:**

Cover-1: Technical Bid

Online bids should be submitted containing scanned copy of following document in Cover-1:

- i) The Technical Offer of Scientific Equipment / Instrument '[Name of the Equipment / Instrument]' meeting all the technical specifications, as mentioned in our tender document. The necessary brochure of the equipment to be included. The user list of said equipment along with copies of purchase orders, if any are also to be included.
- ii) Bid Security Declaration, in lieu of Earnest Money Deposit.
- iii) Tender Acceptance Letter as per Annexure-I.
- iv) Status of Bidder as per Annexure-II.
- v) Check List with necessary enclosures as per Annexure 'Check List'
- vi) Technical Compliance as per Annexure 'Compliance'
- vii) Solvency Certificate.

Cover-2: Financial Bid (Price Bid)

The Financial Bid (Price Bid) shall be submitted in electronic form in conformity with the tender specifications on the portal only by the time & date as specified in NIT. The financial cover shall contain price bid in the enclosed "Schedule of Quantities & Prices" i.e. BOQ_XXXXX.xls, **with different sheets for different equipment / instrument**. The basic rate may be quoted either in Indian Rupee / US Dollars / Euro / Japanese Yen and shall be written in figures in BOQ_XXXXX.xls.

Submission of the Financial Bid (Price Bid) by any other means shall not be accepted by the Purchaser in any circumstances. In case, if any cell is left blank and no rate is quoted against any of the item(s) by the Bidder, rate of such item(s) shall be treated as "0" (Zero) and considered included in the cost of the bid and no separate claim whatsoever will be entertained on this account.

Online submission of the bid will not be permitted on the portal after expiry of submission time and the Bidder shall not be permitted to submit the same by any other mode.

- **OFFLINE SUBMISSION:**

Hard copy of following supporting documents forming part of Techno-Commercial bids shall be submitted offline (i.e. physically) in separate sealed envelope bearing on the top the reference of the Tender to Director, ICMR-NIRRH, Jehangir Merwanji Street, Parel, Mumbai 400012, Maharashtra on or before the due date & time of submission as per NIT. These envelope(s) shall not contain anything else. This part of bid should not contain any "Price information".

i) Documents submitted in the Cover 1: Technical Bid.

If any discrepancy is found between the Hard Copies of the offline documents and scanned copy of same uploaded online then the online bid shall be liable for rejection.

24. The Purchaser reserves the right to itself to postpone and/or extend the date of receipt or to withdraw the Bid notice, without assigning any reason thereof, entirely at its discretion. In such an event, bidders shall not be entitled to any compensation, in any form whatsoever.

25. Online opening of Bids by Purchaser:

The Purchaser will open the Bids online on the date as specified in NIT or any extension thereof. In the event of the specified date or amendment if any for the opening of bids/offline documents being declared a holiday for the Purchaser, the opening shall be carried out at the specified time on the next working day.

Initially, the 'Technical Bid' shall be opened and the 'Price Bid' of only those bidders, whose Technical bid is acceptable to the Purchaser shall be opened online subsequently. The decision of the Purchaser is final and binding in this regard.

During bid evaluation, the Purchaser may ask the bidder for clarification of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered or permitted.

The bidder shall quote for all the individual items mentioned in the Price Bid. The evaluation of the bids shall be done based on the Total price as per BOQ_MDMR.xls: Schedule of Quantities & Prices.

All applicable taxes, duties and levies as mentioned in BOQ_xxxx.xls i.e. Schedule of Quantities & Prices shall be considered for the purpose of evaluation of bids.

Any adjustments in price that result from the above procedures shall be added, for purposes of comparative evaluation only, to arrive at an 'Evaluated Bid Price'. Bid prices quoted by Bidder shall remain unaltered.

26. Award Criteria & Purchaser's Right to accept any bid and to reject any or all Bids:

The Purchaser reserves the right to accept or reject any bid, or cancel/ withdraw invitation to Bid for any reason and annul the Bidding process and reject all bids at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

The Purchaser shall not be bound to accept the lowest or any bid and reserves to itself the right of accepting whole or a portion of any of the bid as it may deem fit, without assigning any reason thereof.

Canvassing in any form or any approach, official or otherwise, by the Bidder to influence the consideration of his bid shall render the bid liable to summarily rejection.

The Purchaser shall award the contract to the successful Bidder whose bid has been determined to be substantially responsive and to be the lowest evaluated bid, further provided that the Bidder is determined to be qualified to perform the contract.

27. Corrupt, Fraudulent, Collusive or Coercive Practices:

It is expected from the Bidders/ Suppliers that they will observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy:

(a) for the purpose of this provision, the terms set forth below shall mean as under:

- (i) "Corrupt practice" means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution; and
- (ii) "Fraudulent practice" means a misrepresentation/ omission of facts in order to influence a procurement process or the execution of a contract.
- (iii) "Collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Purchaser, designed to establish bid prices at artificial, non-competitive levels; and
- (iv) "Coercive practice" means harming or threatening to harm, directly or indirectly, person or their property to influence their participation in a procurement process or affect the execution of a contract;

(b) A Bid may be rejected by the Purchaser if it is determined at any stage that the respective Bidder has engaged in corrupt, fraudulent, collusive and coercive practices as mentioned above in competing for the contract in question.

Chapter 3 : SCHEDULE OF REQUIREMENTS INCLUDING SPECIFICATIONS & ALLIED TECHNICAL DETAILS

Specifications for Gel Documentation System for Nucleic acids and Proteins

System should have:

Camera: CCD: ≥ 5 megapixels, 12-16 bit

Lens: f/1.2, 8-48 mm, automatic zoom

Camera cooling system: Peltier based (cooling temperature: Absolute: -25°C)

Darkroom: Wide front door with UV safety switch, gel viewer window, epi white light, side access doors, two-position emission filter tray

Filter position: 3 (Chemiluminescence, fluorescence – 2)

Emission Filters: SYBR green/green fluorescent protein/ETBr (red- 570-640 nm)

Illumination modes – Trans-UV, white and epi-white lights

Excitation source: 254nm UV lamp/302 nm UV lamp/365 UV lamp

Field of view: Min. 25x20 cm or more

Data transfer: fire wire/USB connectivity

Gel analysis software:

- Should be able acquire, analyze and quantitate electrophoretic gels, plates, membranes as well as colony counts
- Molecular weight determination
- Should have a 3D viewer
- Band/lane matching analysis, background subtraction, Saturation warning
- System should be supplied with free licence software which can be in multiple computers
- Latest branded PC with laser printer

The system should be able to UV, chemiluminescence and fluorescence imaging of gels, plates, membranes

Other requirements:

- Validation of the instrument – to be done every 6 months during the period of warranty
- Availability of local service support and faster response time for a service call during and after warranty

Specifications for -80°C Deep Freezers (3 Nos.)

1. The system should be upright with a capacity of at least 540 litres and a programmable operating temperature from –50°C up to –86°C with 1°C increment, even at ambient temperature of 30°C.
2. It should be fully programmable and microprocessor controlled with membrane keypad and control panel.
3. It should be provided with polyurethane insulation as well as high efficiency compressor and condenser to ensure efficient cooling and temperature uniformity
4. The interiors should be polished and fabricated with stainless steel (SS304).
5. It should have stainless steel shelves and four to five compartments each having individual inner doors with magnetic closures & silicone seal for improved thermal protection of samples.
6. It should have a single outer door with safe silicone triple point seal for improved insulation and an easy to operate single hand door handle with an integrated key lock.
7. It should be possible to open/re-open the door immediately after closure by ensuring prevention of vacuum formation
8. It should be provided with audible and visible alarms for temperature, power failure, system failure, probe failure, clean filter, door etc. and it should also have a remote alarm port for connection to an auto dialer.
9. The freezer must use CFC-Free, HCFC-Free non-flammable refrigerants.
10. It should have temperature hold time of 4 hours or more during power failure as well as battery back-up to ensure display in such instances.

11. It should be supplied with storage racks for completely filling two compartments with 2 inch boxes and one compartment with 3 inches boxes.
12. The system should have energy consumption of less than 8 kW-hr/day.
13. It should also have a data logging port.
14. It should be provided with caster wheels to allow convenient movement in upright position and there should also be provisions for locking in a fixed position.
15. It must be ISO 9001 and IEC 61010 Electrical safety CE & UL certified.

Specifications for Tissue Embedder

- The equipment should meet the following specifications:
- Microprocessor controlled bench top unit with high specimen throughput.
- Paraffin reservoir capacity should be a minimum of 3 liter
- Paraffin reservoir temperature setting range from 45°C to 70 °C with +/- 1°C steps
- Paraffin Wax level indication on display should be available.
- Ample cold plate to accommodate at least up to 60 blocks.
- Refrigerated spot integrated in cold plate to assist tissue orientation
- Cassette bath to store at least up to 100 cassettes
- Cassette tray should have the capacity to contain at least 6-8 cassettes
- Mold warmer temperature programmable from 35°C to 70°C with +/- 1°C steps
- Work surface temperature programmable from 45°C to 70°C with +/- 1°C steps
- Paraffin reservoir, cassette bath, mold warmer and work surface temperature should be individually temperature adjustable.
- Instrument should be programmable for workdays, work starting time, work end time, real time and day of the week for Automatic switch on/off of the instrument.
- 1-way paraffin flow rate adjustment must be available up to 100% flow.
- Illuminated workspace for clear visibility of the processing.
- Activation of paraffin flow via foot switch or using the pressure clip should be available.
- Spacious paraffin collection tray to collect excess paraffin from work surface should be available.

Specifications for Triple Gas Incubator with Hypoxia Chamber

1. The CO₂ incubator with size of 165 L and capacity to hold at least three standard SS shelves
2. Stainless steel interior
3. CO₂ concentration range should be 1-20 % with CO₂ sensor and should withstand 180°C decontamination cycle run.
4. Oxygen control with three inner glass door configuration for hypoxic condition with O₂ measure and control range vol% of 1 to 21 %
5. Relative humidity should be >93% at 37°
6. Covered integrated humidity 3 L water reservoir that provides a high relative humidity (rH). Preferred with water level sensor which indicates when a refill is needed
7. Temperature range ambient +3 to 55° with maximum deviation spatial ± 0.3 and control of $\pm 0.1^\circ\text{C}$
8. System should have user friendly navigator touchscreen for complete data visibility to monitor all incubator interaction
9. Automatically calibration of all electronic measurement and control functions
10. Uniform and fast recovery of all critical growth parameters like temperature, CO₂, Humidity in less than 10 minutes following a 30 second door opening.
11. HEPA filter technology in chamber to provide clean room like air quality conditions
12. 180°C heat decontamination with cycle duration under 12 hours
13. Standard access port which allow cables, plugs and tubing to be easily inserted into or out of the chamber

Specifications for Real Time PCR Machine [2 Nos.]

1. System should be Peltier based and capable of holding 96 x 0.2ml plate or 0.2ml tube strips
2. Temperature Range : 3-99 °C and more
3. Optical System – Excitation should be by LEDs and detection by Photodiodes/PMT/CCD
4. Multiplex capability – 5 targets with more desirable.
5. System should be recalibrated for following dyes - be capable of Detecting FAM/VIC/HEX/TET, JOE/TAMRA/ROX/TEXAS-RED/Cy3/Cy5/SYBR Green and other commonly use dyes along with ability to run FRET chemistry
6. The system should have peak block ramp rate for heating and cooling of 4.5°C or more. The system should support minimum reaction volume of 10µL
7. Range of Excitation/Emission wave lengths : 450-700nm
8. System should contain 6 LED as excitation source with 6 Photodiode as detectors.
9. Dynamic Range: 10 orders of magnitude
10. System should have an inbuilt gradient feature
11. System should be factory calibrated for commonly used dyes
12. Multiplex Capability – Minimum 5 targets in a single tube

Analysis Software

13. Data Analysis Mode: Abs quantification, Real quantification, melt Curve Analysis, Gene expression analysis with multiple reaction efficiencies, allelic discrimination, end point analysis
14. Real Time PCR software for analysis should be open and unlimited installations in Computer/Laptop within the institute should be possible.
15. Data Export: Copy and paste into Microsoft excel, word or power point file, customized reports containing run settings, data graphs, and spread sheets should be directly printed or saved as PDFs

16. Should be compliant to MIQE guidelines
17. Should have software that can perform multiple reference genes normalization, global mean normalisation and user defined normalisation for various experimental needs, should offer several types of quality control for evaluating the quality of post qPCR data. Should offer RDML auto -export.
18. System should be supplied with starter kit free of cost (min 100 sealers, 50 plates and SYBR Green Super Mix 200microlitre). Additionally a standard computer and 2KVA online UPS with 30mins back up should be supplied along with the system.

Specifications for Automated Microbial Cell Counter

- The system should be an automated, image-based cell counter which can differentiate viable and non-viable bacterial cells.
- It should be a benchtop system with dimensions (LxWxH) not more than 18-20 cm (length), 18-20 cm (width) and 20-22 cm (height).
- The system should easily detect single and highly tangled bacteria regardless of their shape and size.
- The system should have an LCD/ touchscreen interface with user-friendly default programs.
- The system should be compatible with the following operating conditions: input power 100-240 V AC, 1.0 A, 50-60Hz.
- The system should hold more than 4 slides in a single run and should provide accurate results with a minimal sample volume of 5-10 μ l.
- The system should have a USB or Wi-Fi port for data transfer.
- It should have standard safety features with failure and other notifications.

Specifications for Air Decontamination Unit

1. Ideal for treating one room upto 50m³ (ceiling Height 3 m)
2. Air filtration should be 3 stage filtration: Prefilter, F7 or F8 filter and HEPA filter of 0.22µm filter or ULPA grade filter.
3. The system should be supplied with Fresh air kit for positive pressure
4. Touch screen control panel with adjustable air flow speed, alarm display and information on air quality.
5. Small footprint
6. Highly mobile, easy to move on dual castors wheel
7. Should comply with at least ISO7 cleanroom
8. Air flow range: 1000m³/h or more
9. Sound level: atleast 41db or less
10. Validated efficiency against fungus, bacteria, viruses and spores
11. Microbiological reduction upto 99.99% in one pass
12. Full compliance for use in high risk 3 areas
13. Plug and play installation
14. Maintains airborne microbial level to B10 standards

Specifications for Microtome

The instrument should have Motorized feeding system with optional motorized and manual sectioning with rocking mode facility and ability for voltage selection, 2nd handwheel brake, separate control panel for display, blade holder, disposable blades, with following specifications:

- Section thickness setting: 0.5 to 100 microns
- Setting values: 0.5 to 5 micron in 0.5 micron increments 5 to 20 micron in 1 micron increment 20 to 60 micron in 5 micron increment 60 to 100 in 10 micron increment
- Horizontal specimen feed: 28 mm +/- 1 mm, feed motion via step motor
- Coarse feed: Motorised coarse feed in two steps i.e 300 micron /sec and >800 micron/sec.
- Vertical specimen stroke length: 70 mm.
- Specimen orientation: Horizontal 8 deg, Vertical 8 deg.
- Trimming Section thickness: 1 to 600 micron
- Specimen retraction: 5 to 100 micron in 5 micron increment, can be turned off.
- Voltage supply: 230 V-50/60 Hz.
- The equipment should be USA- FDA/European- CE approved

Specifications for (Portable) Fluorescence Microscope

1. The system must be infinity-corrected optical system with Royal Microscopical Society (RMS) threaded objectives with a 45mm par focal distance supporting fluorescence, bright field, color bright fields, and phase contrast imaging modes.
2. System must be a compact integrated unit including: microscope, digital cameras, computer, high power fluorescence lighting system for neurobiology, Live-cell imaging, 3D cell imaging (e.g organoids, spheroids), Immunohistochemistry (IHC) applications etc.
3. The instrument should have illumination through five position chamber for 4 fluorescence illuminators plus bright field imaging; light illuminators with integrated hard-coated filter set and LED light source with >50,000 hour life; broad selection of standard and specialty LED illuminators (list of LED illuminators to be attached)
4. Imaging methods by single color, multicolor, time lapse, Z-stacking, movie capture.
5. Condenser- 60 mm LWD condenser; 4-position turret with a clear aperture and 3 phase annuli
6. System must include mechanical X/Y stage; travel range 120mm X 80mm with sub micron resolution, drop-in inserts to receive vessel holders and lockdown holders to fix sample in place.
7. The system must have automated focus mechanism with sub micron (0.150um) resolution (single step accuracy) and mechanical focus wheel with single knob for coarse and fine focus.
8. System must include 5 position objective turret with front mounted control and plan fluorite 10X, 20X, 40X objectives to be supplied along with instrument. The system must include 03 (DAPI-357/447 nm, Texas Red -585/624 nm and YFP-500/542 nm) independent high output LED illuminators to be supplied along with instrument. The LED illuminators must have independent intensity control.
9. Fluorescence LED illuminators must be single, interchangeable cubes that can be easily removed installed and automatically recognized by the instrument software and adjust the configuration accordingly.
10. The system must include an integrated high-sensitivity 3.2 MP or better (2,048X1,536) monochrome CMOS sensor with 3.45 μm pixel resolution.
11. The system must provide a 1-click RGB channel overlay and also able to sequentially acquire a phase contrast image and a fluorescence image with a single mouse click, then overlay them automatically.
12. The system should allow user to review, measure, and annotate captured images and count cells in fluorescence mode post-acquisition.
13. The system should allow to perform Stem cell colony dissection with the fluorescence channels.
14. The system should be supplied with onstage Incubator for precise control of temperature, humidity, and gases for normoxic or hypoxic conditions allows a wide range of biological studies under physiological conditions.

15. The onstage incubator should not have a separate software module or control units and should be controlled by the software and user-interface on the imaging system
16. The system must include wizard based software and include downloadable software updates from time to time at no additional cost.
17. The system should be with small foot print with Dimensions approximately (L X W X H) - 18 X 23 X 18 inches preferable.
18. Light shield & UV shield must be supplied alongwith instrument.
19. Wireless keyboard & wifi dongle must be supplied alongwith instrument.
20. A Calibration slide must be supplied alongwith instrument.
21. Diffusion Condenser Slider for Brightfield Applications must be must be supplied alongwith instrument.
22. Holder for two 25 mm x 75 mm standard microscope slides must be supplied alongwith instrument.
23. Well plate holder for incubator must be supplied alongwith instrument.
24. Holder for two 60mm Petri dishes for for incubator must be supplied alongwith instrument
25. The system should have networking capability connection through windows/SMB network via an Ethernet cable connection and USB 3.0 WiFi dongle
26. System must provide the following output file formats: 16-bit monochrome TIFF or PNG (12-bit dynamic range); 8-bit color TIFF, PNG JPG and BMP.
27. System should have following output ports: Power, 4 USB 2.0 ports, 1 USB 3.0 port, 1 Display Port, 1 RJ45 network jack
28. System should include LCD display- 18.5" articulated LCD color monitor with 1920X1080 pixel resolution
29. The system should be supplied with computer configuration embedded PC with 4 GB RAM, With 10 GB SSD and 16 GB USB3.0 memory stick

Specifications for Refrigerated Centrifuge

1. The centrifuge should have microprocessor based control with digital display of speed, RCF, time and should also have a brushless motor.
2. The instrument should have a compact footprint.
3. The temperature range should be at least from 0°C to 30°C with rapid rates of cooling.
4. The maximum speed should be at least 14,000 rpm/20,000 x g for 1.5/2 ml fixed angle rotor, 10,000 rpm/15,000 x g for 50/15 ml fixed angle rotor, 4,000 rpm/3,200 x g for swing out rotor.
5. It should have a provision for multiple programmable acceleration and deceleration steps
6. The instrument should be capable of storing 10 or more programs.
7. It should be amenable to quick and easy installation and removal of rotors.
8. It should possess the feature of imbalance detection for enhanced safety.
9. The centrifuge must be supplied with the following rotors
 - a. Fixed angle (45 degrees) non-corrosive, metallic rotor with metal lids with a capacity to hold 24 or more tubes of 1.5/2 ml.
 - b. Fixed angle (45 degrees), non-corrosive, metallic rotor with metal lids with a capacity to hold 6 or more tubes of 50 ml and 15 ml with the required adapters.
 - c. Swing out rotor having capacity of 4 X 500ml or more and the necessary buckets/adapters to hold a minimum of:
 - 4 x 12 conical tubes of 15 ml (48 or more tubes)
 - 4 x 5 conical tubes of 50 ml (20 or more tubes)
 - 4 x 4 MTP plates (96 well)
10. The fixed angle rotors as well as the buckets/carriers for the swing out rotors must be provided with aerosol tight, bio containment lids.
11. The instrument should be CE, CSA certified or equivalent.

Specifications for Control Rate Freezer with Liquid Nitrogen Container

- It should contain large chamber which takes up a wide variety of racks including Auto
- Seeding for straws and vials for freezing multiple Data Sample Matrix Racks used in bio banking.
- Its operation should allow with simple one touch control but also gives the operator
- vast possibilities of choosing special programs or different operation modes.
- Freezer should have a rigorous safety concept. It is backed up by an internal Risk Processor which performs continuous operation even if the Tablet-PC is inoperable.
- Temperature Range: +40°C to -180°C
- Cooling Rates: 0.01°C to 60°C/min
- Heating Rates: 0.01°C/min to max. 20°C/min from -180°C to -50°C; 0.01°C/min to max. 15°C/min from -50°C to +20°C
- Outer Dimensions (mm): 630 (W) x 510 (D) x 550 (H) / 600 (W) x 480 (D) x 520 (H)
- Weight: 35Kg – 39 Kg
- Max Capacity: 1000 Straws 0.25 ml or 0.5 ml;
- 1000 vials 1.8 – 2 ml,
- 500 vials 5 ml

Control Rate Freezer of 30 – 34 Liters capacity

Integrated control panel and thermal printer eliminate assembly and connection of electrical components.

Multiple freezing profiles can be tailored to specific protocols.

Enhance freezer functionality easily by adding a PC, installing MS Windows-based Controlled-Rate Freezing PC Interface software (included), and connecting an external inkjet printer.

- **Temperature Control Range: +50°C to –180°C**
- **Should have 2ml vial capacity upto 810 Vials.**
- **Should have 5ml vial capacity upto 483 Vials.**
- **Should have 250/500 ml bags capacity upto 20 bags**
- **Cabinet Material** Stainless steel with power-coat paint finish
- Instrument can be fully controlled and operated from external computer and Instrument control panel.
- **Chamber Freezing Rate: -**
- Minimum 0.1°C / min
- Maximum 99.9°C / min over operating temperature range

Chamber Warming Rate: -

- Minimum of 0.1°C / min (no load, T-couple in free air, center of chamber)
- Maximum of 12.0°C / min (same conditions as above)
- Average of 9.0°C / min (same conditions as above, range -40°C to -12°C)
- **LN2 Injection:** Patented liquid refrigerant injection ring optimizes uniformity and air flow.
- Door interlock switch turns off LN2, heater and fan motor, except during the warm-up cycle.
- Can be operated directly from the unit's built-in microprocessor or remotely through the PC interface
- Backlit LCD provides at-a-glance operational status
- Chamber and sample temperatures are monitored by Type T thermocouples, which eliminate lag time and provide "real time" responsiveness
- Four-digit access code for added security
- Should have 7 to 12 characters password controlled users from computer operation.
- Standard alarms provide for open thermocouple, heater malfunction, high/low temperature limit, temperature tracking, power failure and completion of run
- Dual solenoid valves increase LN2 injection volume for precise temperature control and accelerated freezing
- Chamber and sample temperatures are monitored by Type T thermocouples, which eliminate lag time and provide "real time" responsiveness
- Chamber and sample temperatures and operation status are simultaneously displayed on a backlit LCD
- Standard alarms enable open thermocouple, heater malfunction, high/low temp limit, temperature tracking, power failure, and completion of run
- Intuitive control panel and integrated thermal printer
- Specially designed air handling system and liquid nitrogen ring work in tandem for precise temperature control and uniformity
- Overtemperature protection on heating element
- Pre-Cool step automatically begins temperature ramp when chamber and sample temperatures are equilibrated within 1°C

Construction

- Type 304 stainless-steel construction
- Exterior powder-coat finish
- Foamed in-place polyurethane insulation
- Bulb-style gaskets ensure tight door seal; PTFE heat-breaks prevent door from freezing closed
- Front- and top-access models are designed for human IVF and easy "seeding"
- Inbuilt Printer thermal printer fitted on Top of instrument

- **Compliance:** UL listed to U.S. and Canadian requirements; CE marked
- **USFDA Certified**
- Thermocouple sensor ribbon type for bags and sheath type sensor should be available for straws

Should include a Supply tank with below specification

Specifications	
Physical Characteristics	
Diameter - inches.	24 – 26
Height - inches	52 – 55
Empty Weight - lbs. (kg.)	260 (117.9) – 300 (136.0)
Fill Weight	NITROGEN 401 lbs. (182 kg) OXYGEN 570 lbs. (258 kg) ARGON 702 lbs. (318 kg)
Design Specification (DOT/CTC)	3 – 6L
DOT Service Pressure psig (BAR)	100 (6.9)
Relief Valve Setting psig (BAR)	22 (1.5)
Normal Operating Pressure psig (BAR)	10-100 (0.7-6.9)
Normal Evaporation Rate	
• Nitrogen	1.5%
• Oxygen or Argon	1.0%
Gross Capacity (liters)	(240)
Storage Capacity, Liquid (liters)	(230)
Liquid Level Gauge	Float
Construction Material	Stainless
Pressure Building Regulator	
psig	0-25
(BAR)	(0-1.7)
Finish	Stainless
Base Construction	Stainless
	Steel
	Footring

* The Cryo-Cyl Series liquid cylinders are constructed with an all stainless steel internal support system designed for low heat leak and high strength.

* These cylinders are easily handled by one person.

* Gas stored in liquid form in a Cryo-Cyl Series liquid cylinder is more pure than gas stored in conventional cylinders.

* During periods of non-use, pressure will rise in a cryogenic liquid cylinder. The highly

efficient insulation system minimizes the rate of pressure rise. This allows for a reasonable period of nonuse without any venting of product from the pressure relief valve.

- * Internal pressure building and vaporization systems permit a continuous flow of gas without need for an external vaporizer.

- * The pressure control regulator automatically maintains working pressure with minimum product loss.
- * Cylinders can be used singularly or can be manifolded to provide a continuous gas supply.
 - Should include Cryogloves, T-Valve, Hose, LN2 Measuring Stick

Specifications for Bright Field Microscope with Software for Karyotyping

Magnification: 100x-1000x for observation.

Optical system: High quality optics (infinity corrected optical system). (High intensity and uniform co-illumination)

Eyepiece tube: Trinocular tube should be inclined at 30° for comfortable observation. 3-way light path selection (50:50, 100:0, 0:100). Paired antifungal eyepieces of 10x magnification with F.O.V 22 or more. Should have port to mount the camera on to the microscope.

Eyepiece lens: 10x (2pcs) with both sides diopter adjustment (FN22 mm) or better.

Objective: High performance chromatic aberration free objective suitable for bright field microscope:

Plan Semi Apochromat 10x NA 0.3, WD 10.00 mm or better

Plan Semi Apochromat 40x NA 0.75, WD 0.5 mm or better

Plan Apochromat Objective 100X/1.45, WD 0.13 mm, Oil and Spring Loaded

Nose piece: Non-motorized sextuple/ seven port (preferable) revolving nosepiece, with a slot for analyzer / DIC prism should be provided.

Condenser: Swing out condenser. 0.90 NA

Coarse/fine focusing: Coarse and fine focusing adjustable.

Stage: Ceramic coated XY stage with two slide holder capacity at a time

Illumination: High performance high colour reproducibility LED Light Source.

Upgradability: The Microscope should be upgradable to Phase, Darkfield, DIC and Fluorescence in near future.

Camera Mount: 0.5X C mount to be provided

ACQUISITION SYSTEM:

1. Acquisition of only required region.
2. Capturing by one mouse click and the whole process is performed under the same software platform.
3. Automatic camera and image capture control with manual override function.
4. Display optimization for maximum display contrast
5. Camera: Digital camera with 3.45 µm pixels, 35fps, with Gigabit or USB interface.

DATABASE:

1. Single database for all applications
2. Modern paperless laboratory design management software should be included.

3. Centralized server with better network accessibility and data integrity.
4. Capable to integrate with LIS (Laboratory Information System) of the institute/organization.
5. Data access from any workstation in the network should be possible.
6. Ability to associate with any external documents (pdf, word, xml etc).
7. Any replaced or new metaphases should be updated in the gallery and in the database.
8. Capable to export acquired image as clipboard image.
9. Capable to import external images.
10. Image processing history to be saved with date and time of each modification
11. Ability to migrate cases from various versions.
12. Ability to generate highly configurable customized reports.
13. Easy and unlimited data archival and retrieval.
14. Extract statistical information of cases/reports like cases per year, results per year, samples per year etc.
15. Database search engine gives the user the ability to search a single data field or multiple data fields within the data base for specific information and to display these cases which meet the criteria and to help with work flow.

KARYOTYPING SOFTWARE:

- Ø Ability to handle G-, R-, Q- banding, polyploid cells and markers
- Ø Ability for multiple users to perform analysis on individual images within the same case simultaneously, for faster analysis of an urgent case.
- Ø Ability to perform automatic contour to widen and shrink the chromosome in one click.
- Ø Merge as many regions or chromosomes as required.
- Ø Easy to Move chromosomes. Drag and drop chromosomes to desired locations. Drag all chromosomes of a class at once.
- Ø Simple Chromosome Rotation using the mouse scroll wheel.
- Ø Localise Marker Chromosomes in Karyotype view.
- Ø Additional tools for counting chromosome.
- Ø Annotate chromosomes as well as ideograms.
- Ø Ability to prepare the customised ideograms.
- Ø Support of ISCN ideogram with 300, 400, 550, 700 and 850 band resolutions.

∅ Multi-function tool which eliminates the need for switching between other functional tools. A single tool must be used to select, de-select, separate touching and overlapping chromosomes, cut, join, delete or add parts of chromosomes, rotate or move the chromosomes etc in metaphase as well as in karyotype workspace.

∅ Ability to work in any workspace.

∅ Ability to add missing telomeric regions directly in karyotype view.

∅ Accurately estimate the band resolution of metaphase with automatic ISCN embedded abnormality text.

∅ User should be able to track and mark p and q arm of each chromosome.

∅ Fast definition of classifiers allow the user to train the software to perform automated karyotyping on various sample types, band resolutions, preparations, etc

∅ Capable to compare chromosomes within the case and within different cases. System should automatically present single karyotype of multiple patients (like family members) with all chromosomes included side by side for each class.

COMPUTER:

Compatible latest branded computer with minimum Intel® Core i5 series , 8GB RAM, HDD 500GB Windows 10 professional OS 64 bit

∅ 25" High Resolution Monitor, Full HD monitor with minimum resolution of 2560 x 1440. Complete System should be FDA approved and compatible to transfer cases and work on metaphases captured on our existing

Chapter 4 : TENDER FORMS/ANNEXURES

Annexure I

TENDER ACCEPTANCE LETTER

Date : _____

To,
The Director,
ICMR-National Institute for Research
in Reproductive Health (ICMR),
J.M. Street, Parel, Mumbai 400012

Subject: **Offer for Supply, Installation, Testing and Training of the Tendered Item**
Name of the Item _____

Dear Sir,

I _____ for and on behalf of
M/s. _____ beg to offer
the Technical as well as Financial Bid for participation in the Tender invited by the Institute
for the designing, supplying, installation and testing of the above said item and state as
under:

1. It is certified that offered item is technically sound and satisfies the prescribed specifications of the item. The literature containing designing of the system with other details to satisfy the requirements of the item are attached herewith for perusal and ready reference for the purpose of evaluation.
2. It is certified that all the terms and conditions (General & Special) are acceptable to us and agreed to abide by all the said terms and conditions.
3. It is certified that we agree to keep this offer valid for a period up to **30th September, 2021 and will provide further extension of validity, if required.**
4. It is certified that the amount of Bid Security Declaration is attached herewith.
5. It is certified that the Technical Bid and Financial Bid have been sealed separately and submitted with the offer for consideration, evaluation and competition.

6. It is certified that the necessary agreement will be executed within 14 days on the non-judicial paper in token of acceptance and execution of the Contract from the date of receipt of purchase order.
7. It is certified that the Bank Guarantee for the amount equivalent to 3% of the total cost of the item shall be submitted in case 100% payment is claimed against the supply and installation/testing etc. on successful completion of the Contract.
8. It is certified that a copy of the Warranty Card to cover the comprehensive risks has been attached in the Technical Bid.
9. It is further certified that the offered item will be kept under the Comprehensive warranty for 3 years and 2 years non-comprehensive warranty from the date of successful installation and testing for all comprehensive risks and preventive maintenance thereof.
10. It is also further certified that the item will be kept under Annual Maintenance Contract at least for a period of 5 years after the expiry of the Warranty Period and the necessary consumable and non-consumable parts shall be made available for carrying out preventive maintenance and remove the defects. The reasonable Annual Maintenance Service Charges (**both Comprehensive and Non-Comprehensive**) have been indicated correctly in the Commercial Offer-Price Bid, attached separately.

Encl.: As above.

Date:

Signature

Place:

Name

Stamp

Annexure II

STATUS OF THE BIDDER/TENDERER

1. Name of the Bidder/Tenderer(in full) :
2. Whether a proprietary firm/
partnership firm/Pvt. Company Ltd.
/Public company Ltd./Trust or others :
3. Registration No. :
IT PAN No. _____
4. Authorities with whom registered :
5. Name & Address of the Proprietor/
Partners/Directors/Authorised
Attorneys with full Address,
Telephone No. and E-mail I.D. :
6. Working experience of the organization:
(In Brief)
7. Resourcefulness /financial status :
8. Name of the Bankers & Address
with telephone nos. :
9. Infrastructure Facility available
with the Tenderer :
10. Notice of time required to attend the
call/complaint to remove the defects :

**Signature & Name with Designation
of Tenderer with Rubber Stamp**

Annexure 'Check List'**Tenderers should enclose the necessary documents as given in the Check List**

Sr. No.	Description	Vendors should put appropriate remarks against each item i.e. Yes/No/Agreed/Not Agreed/Enclosed /Not Enclosed etc.
1	Acceptance of General conditions contract.	
2	Terms of payment as per enclosed sheet.	
3	List of Engineers & Staff available with the agency.	
4	Completion time (4 – 6 weeks)	
5	Basic Rates are excluding of all taxes & duties i.e., GST etc. which are shown separately. (Rates including taxes are not acceptable)	
6	Rates are firm throughout the Contract Period.	
7	Warranty of 5 Years (3 Years Comprehensive & 2 Years Non-comprehensive) commencing from the date of completion of the work, installation and testing of the equipment / instrument / system.	
8	State whether Inspection / Final inspection & Testing at works Before Dispatch of the Materials agreed	
9	Inspection & Testing at Site agreed	
10	The entire supply / work will be carried out as per Technical Specifications given in Tender Notice.	
12	Whether the following documents are submitted along with tender? a) List of Engineers to be placed at site for Installation / Testing b) Authorization letter from Manufacturer c) Layout Drawings d) Bank Solvency Certificate e) Specification Compliance Statement (Annexure 'Compliance') f) Details of service setups at Mumbai. g) List of similar works carried out during last three years. h) Catalogues and technical details of offered Equipment. i) Bid Security Declaration, in lieu of EMD. j) List of users of model quoted with complete address. k) Acceptance of penalty clause, risk purchase clause in case of default	

**Signature & Name with Designation
of Tenderer with Rubber Stamp**

Annexure 'PAC'

Proprietary Article Certificate (PAC) from the firm [ONLY IF APPLICABLE]

Note: Proprietary Article Certificate in the following form is to be provided by the OEM/ authorized dealers/ Stockiest of OEM) before procuring the goods from a single source.

- (i) The indented goods are manufactured by M/s.....
- (ii) No other make or model is acceptable by the Institute/ Centerfor the following reasons:
 - (1)
 - (2)
 - (3)
 - (4)
- (iii) Concurrence of finance wing of the OEM/ authorized dealers/ Stockiest of OEM to the proposal vide:
- (iv) Approval of the competent authority of the OEM/ authorized dealers/ Stockiest of OEM

(Signature with date and designation OEM/ authorized dealers/ Stockiest of OEM)

Chapter 5 : OTHER STANDARD FORMS/FORMATS

A) Agreement (To be Signed by Successful Tenderer on Award of Tender)

This agreement regarding the supply, installation and maintenance of _____
_____ made this day the _____ between the Director, ICMR-
National Institute for Research in Reproductive Health, J.M. Street, Parel, Mumbai
400012, hereinafter referred to as the First Party and M/s
_____ and their agent M/s _____
_____ hereinafter referred to as the Second Party
respectively, which expression shall unless specifically excluded by or repugnant to the
context include their heirs, Executors, Administrators, Legal Representatives and
Assignees. The Second Party may nominate their agent if they so desire and inform the
first party in writing about such appointment. It is further stipulated that
notwithstanding any thing else in the agreement the second party, shall inform the first
party in writing about the change of such agency. Further, the new agency shall remain
bound by the present agreement irrespective of any agreement written or otherwise
between the second party and its agents to which the first has not been a party in
writing. It is further agreed that this agreement will be binding on both the parties.

- b) This agreement concern the supply and installation of _____
_____ equipment to be supplied
by the Second Party according to the Order No. _____ issued by
the First Party a copy of which is appended. Further, the equipment is to be installed by
the Second Party according to the schedule agreed upon as stated below.
- c) The Second Party agrees to supply the entire equipment within the agreed period after
the execution of Contract Agreements. Further, the equipment will be supplied installed
and handed over to the First Party in complete working order within a total period of
_____ after receiving the order.

While the First Party shall ensure that the needed infrastructure is ready before the
arrival of equipment, the Second Party in the event of their failure to complete
installation and set the instrument in working order in the stipulated time will pay
interest at the rate of 15% on the sum equivalent to the value of the order. The Second
Party will inform the First Party in writing intimating the reasons for delay in supplying

and for installing the equipment. The First Party at its sole discretion may consider waiver to the penalty for a period to be stipulated in writing.

- d) Thorough inspection of the instrument will be carried out by the First Party only on completion of the entire job of installation and commissioning of the equipment.
- e) Packing should be conforming to National/International standard and strong enough to avoid damage, pilferage, protection from rain water/moistures and other terms of deterioration during transit. Packing proposed to be employed should be clearly stated details of the charges for alternative packing.

f) Guarantee/Warranty:

- i) The Second Party Guarantees the entire equipment against defects of manufacture, workmanship and quality and components and undertake to take care of the latent defects.
- ii) The Guarantee/Warranty shall be of comprehensive and on-site for a period of **Five Years (3 Years Comprehensive Warranty and 2 years non-comprehensive)** starting from the date of satisfactory installation and handing over the equipment in full working order to the First Party. During this Guarantee/Warranty period, the replacement of any part(s) of the equipment or rectification of defects will be carried out free of cost of the part(s) and labour etc.
- iii) The Second Party guarantees that the number of occasions the equipment will be down will not be more than the twelve times per year or thirty six days per whole year (365 days), whichever is less. Further, the Second Party will ensure that the downtime on any one occasion will not be more than three days (excluding holidays).
- iv) The Second Party will submit a bank guarantee/Bank's Deposit Receipt for 10% towards the execution of the agreement and the warranty valid till the expiry of the warranty period of the **Five Years (3 Years Comprehensive Warranty and 2 years non-comprehensive)**. After receipt of the said bank guarantee the First Party will return the EMD Deposit for Rs. _____ already submitted by the Second Party along with tender. On expiry of the warranty period the bank guarantee Deposit Receipt of the said bank guarantee the First Party will return the EMD Deposit for Rs. _____ already submitted by the Second Party along with tender. On expiry of the warranty period the bank guarantee Deposit Receipt for 10% will be returned by the First Party to the Second Party duly discharged.

v) The Second Party declares that the equipment being supplied is the latest model and version.

g) Training:

The Second Party will provide literature of detailed applications and technical training regarding the working of the equipment to the nominees of the First Party at site, free of cost and charges thereof.

Certified that I have read above terms and conditions carefully and taken note of them for compliances and I hereby accept all these terms and conditions laid down here above and General and Special conditions mentioned in the Tender Document.

**Signature and Named Designation of
Tenderer with Rubber Stamp**

B) Bank Guarantee Format

(STAMP PAPER SHOULD BE PURCHASED IN THE NAME OF ISSUING BANK)

Bank Guarantee No. _____

Ref: _____

Dated: _____

To

The Director,

ICMR-National Institute for Research in Reproductive Health (ICMR),

J.M. Street, Parel, Mumbai – 400 012

Dear Sir,

In consideration of National Institute for Research In Reproductive Health (ICMR) (Hereinafter referred to as N.I.R.R.H. (ICMR) which expression shall unless repugnant to the context or meaning thereof, includes all its successors, administrators executors and assignees) having entered in to Contact/Order No. _____ dated _____ (hereinafter called 'the Contract' which expression shall include amendments thereto) with M/s. _____ having its head/registered office at _____ hereinafter referred to as 'the Contractor' which expression unless repugnant to the context or meaning thereof, include all its successor, administrators, executors and assignees) and NIRRH having agreed that the Contractor shall furnish to NIRRH, for _____ (scope of work) _____ the faithfully performance of the entire contract.

a) We _____ (Name of the Bank) _____ registered under law of _____ having head/registered office at _____ (hereinafter referred to as 'the Bank' which expression shall unless repugnant to the context or meaning thereof,

include all its successors, administrators, executors and permitted assignees) do hereby any/all monies to the extend of Indian Rs. _____ (in figures) _____ (Indian Rs. _____ (in words) _____ without any demur, reservation, recourse, contest or protest and/or without any reference to the Contractor. Any such demand by NIRRH (ICMR) on the Bank by serving a written notice shall be conclusive and binding without any proof on the bank as regards the amount due and payable notwithstanding any dispute(s) pending before any Court, Tribunal, Arbitrator, or any other authority and/or any other matter or thing whatsoever as liability under these presents being absolute and unequivocal.

- b) We agree that the Guarantee herein shall be irrevocable and shall continue to be enforceable until it is discharged by NIRRH (ICMR) in writing. This guarantee shall not be determined discharged or affected by the liquidation, winding up, dissolution or insolvency of the Contractor and shall remain valid binding and operative against the bank.
- c) The Bank also agree to that NIRRH at its option shall be entitled to enforce this guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the contractor and notwithstanding any security or other guarantee that Institute may have in relation to the Contractor's liabilities.
- d) The Bank further agree that NIRRH shall have the fullest liberty without our consent and without affecting in any manner our obligations hereinunder to vary any of the terms and conditions of the said contract or to extend time of performance by the said Contractor(s) from time to time to postpone for any time or from time to time exercise of any of the powers vested in NIRRH against the said Contract(s) and to forebear or in force any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
- e) The Bank further agrees that the guarantee herein contained shall remain in full force during the period that is taken for the performance of the Contract and all the dues of NIRRH under or by virtue of the contract have been fully paid and its claim satisfied or discharged or till NIRRH discharge this guarantee in writing, whichever is earlier.
- f) This guarantee shall not be discharged by any change in our constitution, in the constitution of NIRRH or that of the Contractor.
- g) The Bank confirms that this guarantee has been issued with observance of appropriate laws of the country of issue.
- h) The Bank also agree that this guarantee shall be governed and construed in accordance with Indian laws and subject to the exclusive jurisdiction of Indian Court of the place from where tender have been invited.
- i) Notwithstanding anything contained hereinabove, our liability under this guarantee is limited to Indian Rs. _____ (in figures) _____ (in words) and our guarantee shall remain in force until _____ (indicate the date of expiry).

Any claim under this Guarantee must be received by us before the expiry of this Guarantee. If no such claim has been received by us by the said date, the rights of NIRRH under this Guarantee will cease. However, if such claim has been received by us within the said date, all the rights of NIRRH under this Guarantee shall be valid and shall not cease until and we have satisfied that claim.

In witness thereof, the bank through its authorised officer has set its hand and stamp on this _____ day _____ of 202__ at _____.

Witness No. 1

(Signature)

Full Name and Official

Address (in legible letters)

(Signature)

Full Name, Designation

Official Address (in legible letters)

with bank stamp

Attorney as per power of

Attorney No. _____

Dated:

Witness No. 2

(Signature)

Full Name and Official

Address (in legible letters)