

பெரியார்பல்கலைக்கழகம்

**PERIYAR UNIVERSITY**

SALEM- 636011, TAMIL NADU

NAAC A++ Grade - State University - NIRF Rank 63 ARIIA Rank-10

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Ref.No.PU/R/R13-1/Biochemistry/021323/22F62497/2022

Date: 23-11-2022

**TENDER NOTIFICATION**

**Sealed Tenders (Two Cover Systems)** are invited by the Registrar, Periyar University, Salem -11 for the **Purchase of Real Time PCR to the Department of BioChemistry, Periyar University** from reputed firms.

The detailed tender documents with specifications, terms and conditions etc. can be downloaded from the University website [www.periyaruniversity.ac.in](http://www.periyaruniversity.ac.in). The last date for receipt of the tender by this office is **16-12-2022 at 10.30 am.**

**TENDER SUMMARY**

Tender Ref. Number	PU/R/R13-1/Biochemistry/021323/22F62497/2022 Date: 23-11-2022
Name of Material	Real Time PCR
Tender Document Cost (₹.) (Separate DD for each Tender document)	<u>₹. 9,440/-</u> (Demand Draft shall be taken from any nationalized bank in favour of <b><u>"The Registrar, Periyar University"</u></b> , payable at <b><u>"Salem"</u></b> .)
Amount of EMD (₹.) (Separate DD for each Tender document)	<u>EMD Amount ₹. 15,000/-</u> (Demand Draft shall be taken from any nationalized bank in favour of <b><u>"The Registrar, Periyar University,"</u></b> payable at <b><u>"Salem"</u></b> .)
Last date & time for bid submission	upto 16-12-2022 at 10.30 am.
Bid outer cover and Technical Bid opening date & time	upto 16-12-2022 at 11.30 am.
Price bid opening	It will be decided on the day of opening.
Technical Specifications	Technical Specifications give in the tender schedules

**Registrar (FAC)**

## Tender Schedule

Ref. No. PU/R/R13-1/Biochemistry/021323/22F62497/2022

Dt. \_\_\_\_\_

**Name of the Material:** Real Time PCR, Department of Biochemistry, Periyar University.

### Details of the Tenderer:

Sl.No.	Particulars	Details
1.	Name and address of the Tenderer	
2.	Contact Phone / Mobile No.	
3.	Email id:	
4.	GST No.	
5.	PAN / TAN No.	
6.	<b><u>Bank A/c. Details</u></b> (Bank Name and Address, Account Number, IFSC & MICR Code, etc.).	
7.	Tender fees payment	DD.No. _____ / Dt. _____ Bank _____ Rs. _____/-
8.	Earnest Money Deposit	DD.No. _____ / Dt. _____ Bank _____ Rs. _____/-

9. Detailed Technical Specifications of the Material to be supplied / Work to be done (necessary brochures to be attached by the Tenderer for Technical Verification).
10. Compliance Statements for each of the technical specifications must be given by the tenderer.

### **Terms and Conditions**

1. Sealed tenders will be received by the Registrar up to **10.30 am on 16-12-2022** for **“Purchase of Real Time PCR to the to the Department of Biochemistry”** as per the technical specifications given in the tender schedules.
2. The tender shall be submitted in a sealed cover superscribed as **“Purchase of Real Time PCR to the to the Department of Biochemistry”** for use of Periyar University due on **16-12-2022** at **10.30 am**.
3. If the last day fixed for the receipt of tender happens to be a holiday tenders will be received on the next working day upto 10.30 am.
4. Each tender shall accompany a **Tender Document Cost of ₹. 9,440/-**. The Tender Document Cost in the form of the Demand Draft shall be drawn in any nationalized bank in favour of **“The Registrar, Periyar University, payable at Salem”**. (Separate DD for each Tender). Wherever exemptions are applicable necessary support documents shall be attached.
5. Each tender shall accompany an **EMD amount ₹. 15,000/-**. The EMD in the form of the Demand Draft shall be drawn in any nationalized bank in favour of **“The Registrar, Periyar University, payable at Salem”**. Tenders without E.M.D. will be summarily rejected. E.M.D. will not carry any interest. Wherever exemptions are applicable necessary support documents shall be attached.
6. The tenderer should have supplied or executed the work during the last three years an average amount equivalent to atleast 30% of the quoted value of the tender.
7. **Tenders received after the deadline will be returned to the tenderer unopened.**
8. **The Tenderer should follow two-cover system in which one should be Technical bid and another should be price bid for submission of Tender.**
9. The Technical Bid should contain all the relevant technical specifications of the Material to be supplied or work to be done. It should also contain Tender fees, EMD, Income tax returns for the last three years, Balance sheet for the last three years, a detailed customer list, and copies of necessary documents (TAN/PAN, GST, Certificate of Incorporation, Exemption Certificate, Compliance statement, etc.).
10. Price bid should contain only the price of the items to be supplied as indicated in the price bid document.
11. The Technical bid and the Price bid sealed in separate covers should be kept together in an outer cover which should be superscribed with tender Ref. No., Last date of submission and time, Tender title, and sealed.

12. The entries in the tender schedules shall be as much as possible without scoring, corrections, and overwriting and shall be legible. The unavoidable correction or scoring shall be attested by the full signature of the tenderer.
13. The tenderer should sign and number on all pages of tender documents without any omission including brochures and other technical details.
14. **The tenderer should quote his/her rate and tax for each item separately in figures and words in the corresponding column in the Price bid and has to be kept in a separate sealed cover.**
15. If the rates quoted in the schedule differ in words and figures, only the lowest quoted rate will be considered.
16. No revision of rates will be permitted after submission of the Tender document. Rates quoted shall be final.
17. The quoted rates shall be for delivery at the University Campus, including charges such as packing and forwarding. The tenderer is solely responsible for delivery of materials in good condition.
18. **The tenderer should produce the materials as per the specifications given in the tender schedule.**
19. The tender shall be valid for one year from the date of opening. The tenderer should not withdraw his tender after the tenders are opened. In case the tender is withdrawn after opening, the E.M.D. will be forfeited.
20. The EMD of the unsuccessful tenderers will be refunded immediately.
21. **The successful tenderer shall also furnish a security deposit at 2% of the value of the order after the tender was awarded. The Security Deposit will be refunded after the warranty period.**
22. In case of failure by the tenderer to supply items demanded within the period prescribed, the Registrar shall have the power to purchase from others instead of rejecting or not delivering goods, the excess cost and expenses will be worked out and recovered from the tenderer.
23. Successful tenderer should execute an agreement on stamp paper to the value of ₹100/- within seven days from the date of receipt of intimation about acceptance of the tender. Failure to execute the agreement in the stipulated time will entail forfeiture of the EMD.
24. Any dispute arising out of this contract shall be settled only on the court having jurisdiction of Salem.
25. The authority competent to accept the tender reserves the right to reject the tender without assigning reasons thereof.

26. Regarding the acceptance of supply concerning the specifications and quality of materials supplied, the decision of the Registrar shall be final. The rejected materials should be removed within 15 days at Tenderer's cost.
27. University's General rules for the supply of the materials and works will apply to this purchase also.
28. The goods should be supplied and works to be done within the time prescribed by the University, after receipt of the Purchase / Work order.
29. If the tenderer fails in the due performance of his supply within the time fixed, the tenderer is liable to pay us liquidated damages up to 2% per month for the supply value of such portion of the materials as have not been delivered.
30. If the tenderer fails to accomplish the task ordered to them in time it will lead to cancellation of tender awarded.
31. Percentage of payment to be withheld for the effective performance of the contract, provided that the withheld amount does not exceed ten percent of the contract's total value.
32. The cost must include the warranty and maintenance as specified under the technical specification of the tender document.
33. The Tenderer's complete address, including the year of Establishment, Phone No., Fax No., E-mail address, etc., must be furnished.
34. The tenderer should be responsible for the erection & installation of the equipment at the destination site and for making it fully operational. Payment and terms and conditions would be specified by the tenderer separately; if any.
35. Canvassing in any form in connection with tender/quotation will be liable for rejection of the Tender.
36. List of details of works executed and a list of customers shall be attached.
37. Provide your Bank details (Bank Name, Address, Account Number, IFSC & MICR Number for EMD & Security Deposit Return and Payment Purpose).
38. All Electrical work should be inspected and Certificated by a "C" License holder of the Periyar University, Salem, and the consultancy fee for inspection and Certification has to be paid by the Successful tenderer".

This tender is submitted subject to agreeing to the above conditions.

Signature of the Tenderer  
(with Seal)

## PRICE SCHEDULE

(This price schedule shall be filled and kept in a separate sealed cover along with Tender Document)

Ref. No. PU/R/R13-1/Biochemistry/021323/22F62497/2022

Dt. \_\_\_\_\_

**Name of the Material:** Real Time PCR, Department of Biochemistry, Periyar University.

The quantities below are approximate and likely to be increased/reduced.

The rates should be quoted for the mentioned brand or its equivalent only.

**The rates should be inclusive of all taxes. Taxes must be exhibited separately in the bill. If not, a deduction of tax (GST) will be made at the final payment.**

The Unit rates noted below are those governing payments.

The rates quoted are for delivery at the University Campus.

Sl. No.	Particulars	Qty in Nos.	Rate Per Unit	Net Amount (A)	GST %	GST Amount (B)	Gross Amount (with GST) (A+B)
1.	Real Time PCR  (Specifications enclosed as Annexure)	1					
<b>Total</b>					-		

Gross amount of the tender is Rupees. (in words) \_\_\_\_\_

\_\_\_\_\_.

Signature of Tenderer  
(with Seal)

**Real Time PCR Specifications**

1. Real-Time PCR (RT-PCR) system capable of qualitative and quantitative detection of nucleic acids and discovery of genetic variations. The equipment should be with inbuilt stand-alone analysis capabilities for quantification, genotyping and expression studies and also compatible with laptop/ desktop computer. Should have multi-function LED indicator bar at front for instrument status monitoring.
2. The equipment should have inbuilt - interactive touch screen to run an experiment with options for adjustable angle of rotation on one-axis between 12° and 55° for better visualization & color blind compatible data accessibility .The block lid should have motorized movement for smooth plate set up.
3. System should have on system memory storage function for at least runs 1000 runs.
4. System should come with fixed block compatible for 96 x 0.1 ml tubes or 96 well plate.
5. System should be Gradient enabled. Capacity to test eight temperatures at once to quickly determine the optimal annealing temperature.
6. System should have gradient programmable span of 1-24 deg with gradient operational range of 30-100 deg C.
7. Minimum six excitation and Six emission channels Each filter should correspond to one color that ensures smooth differentiation of dyes having high degree of spectral overlap. Excitation – Emission range: 450- 730nm with capacity to detect 5 or more different fluorescent reporters in the same tube.
8. System should be pre-calibrated for detecting FAM/SYBR® Green I, VIC/Hex/Yellow/JOE/TET, ROXTM, Texas Red , CAL Fluor Red 610, TEX 615,CY5, CY 5.5, Quasar 670, Quasar 705) and capable of calibration for new dye without hardware and filter change.
9. System should be able to collect data for all filters for all wells regardless of place setup.
10. Temperature range of thermal block should be 0- 100 °C and temperature accuracy should be about  $\pm 0.2^{\circ}\text{C}$  to  $0.25^{\circ}\text{C}$  and temperature uniformity of  $\pm 0.3^{\circ}\text{C}$ .
11. Ramping speed up to  $5^{\circ}\text{C}$  per sec
12. Peltier based Cooling & Heating for uniform temp control across the samples.
13. No internal reference dye should be required. True 5 Color Multiplexing with use of 5 different fluorophores without the need of addition of any internal reference dye.
14. Excitation source should be LED & detection with filtered Photodiode.
15. System should have wide dynamic range, up to 10 orders .
16. Open system capable of running various chemistries so that 17. Different chemistries using TaqMan, Molecular Beacon, SYBR green etc can be performed.

18. Sensitivity of the system demonstrated down to 1 copy with as little as 1.3-fold changes in target quantities in single-plex reaction.
19. Should have multiple scan modes with a FAST scan option for reading all wells in 3 seconds.
20. Should be able to run automatic allelic discrimination by end point fluorescence or threshold cycle for upto 5 fluorophores.
21. Should have capacity to run Melt curve analysis with high resolution melting as optional feature.
22. Should be capable to perform dye binding thermal shift assays for protein unfolding analysis.
23. The amplification traces should be viewed on the LCD screen in real time while a run is in progress with touch screen facility. System software should offer flexibility for connectivity with Wi-Fi, local network file access, and cloud based remote access in addition to USB.
24. The could access system should enable remote experiment setup and data management, flexibility to use anywhere and at any time; increasing instrument availability to enable users to eliminate the instrument PC.
25. Dedicated licensed full version software for variety of analysis applications including absolute quantification, relative quantification, allelic discrimination, FRET and high resolution melt curve analysis Simultaneous viewing of amplification plot & QC summary to easily identify & eliminate outliers System should be compliant with the MIQE Guidelines.
26. The system Software should be capable of data collection, perform data analysis like t-Test, One way Anova in few mouse clicks.
27. The system Software should be able to generate publication ready bar charts, volcano plots, box & whisker plot & annotate with p values.

### **Accessories for RT-PCR**

1. 3 Kva ups online with 1 hr back up
2. Should provide branded desktop PC with i5 processor, 4GB RAM, 1TB Hard disk and original OS.
3. Variable Pipette branded 0.1 to 2.5 ul, 0.5-10ul, 2-20 ul, 10-100 ul
4. Branded Air conditioner 1.5 ton with stabilizer
5. Should provide 3 years warranty plus 2 years AMC



**Checklist for Tender documents attached**

<b>SLN o.</b>	<b>Particulars</b>	<b>Page No.</b>	<b>✓</b>
1.	Tender Document Cost (DD Enclosed)		
2.	Earnest Money Deposit (EMD) (DD Enclosed)		
3.	GST / Company Registration Certificate		
4.	PAN / TAN Certificate		
5.	Audited Statement (Balance Sheet) for last three years		
6.	Income Tax returns for the last three years		
7.	Customer List (Name and addresses of your valid customers)		
8.	The tender schedule is properly filled and signed (with seal) on all pages and each page was numbered		
9.	Your offer Letter		
10.	Technical Bid (attached in a separate cover)		
11.	Price Bid (attached in a separate cover)		

**Total No of pages of this tender: \_\_\_\_\_**