



Government of Karnataka



**BOWRING & LADY CURZON MEDICAL COLLEGE & RESEARCH INSTITUTE,
SHIVAJINAGAR, BENGALURU.**

No. BLCMCRI/378/2019-20

Office of the Director cum Dean,
Bengaluru, dated 29.03.2020

NOTICE

Bowring & Lady Curzon Medical College & Research Institute, Bangalore decided to purchase the following equipments to department of Pathology for testing the COVID-19 patients as per the provisions of KTPP 4(a). Interested suppliers are requested to submit the lowest quote along with make, model, equipment literature, prices, warranty details and consumable prices (if any) through email by 31.03.2020 at 11.00 am marked to bowringmedicalcollege@gmail.com.

Equipment details:

Sl. No.	Name of the Equipment	Qty. Required
1	Fully automated coagulation analyser to estimate the course of the disease	1 No.
2	RT-PCR to test for COVID with required accessories like Automated nucleic acid extractor, microcentrifuge, biosafety cabinet and deep freezer (-20 ⁰ C and -80 ⁰ C)	1 No.
3	Serum ferritin and procalcitonin level estimation reagent	1 No.


**Director cum Dean
BLCMC&RI, Bangalore**

Copy to:

1. Director cum Dean, BLCMCRI/BMCRI, Bangalore
2. Medical Superintendent, Victoria Hospital/Vanivilas Hospital/Minto Hospital/PMSSY/SDS TB & Rajiv Gandhi Chest Diseases Hospital/K.C.General Hospital/Jayanagar General Hospital, Bangalore with request to display the notification on notice board of your institute.
3. Notice Board

General Terms and Conditions:

1. Necessary UPS should be provided along with the equipment.
2. Warranty period should be mentioned and extended period for CMC for 5 years should be quoted.
3. Upgradation of software should be made at free of cost whenever applicable.
4. Printers and other accessories should be provided.
5. Training should be provided.
6. Installation should be done at emergency basis.


28/3/2020.

Real Time PCR system Technical Specifications

1. A dedicated multicolor Real Time PCR system (excitation and emission) with latest generation Peltier-based 96-well plate/tube in-built PCR to support:
 - a. Gene-Expression analysis,
 - b. Pathogen Quantitation,
 - c. SNP Genotyping,
 - d. Plus/Minus Assays that utilize internal positive control,
 - e. Dissociation Curve Analysis,
 - f. Multiplexing and complete End-Point Assays.
2. Bright White LED for better excitation
3. Six decoupled filters with minimum 6plex multiplexing (six targets in one tube).
4. System should be capable of running 6 individual programming in the same run with different set of temperature.
5. Max block ramp rate should be 6.5°C/sec with temp uniformity of 0.4°C. Run time should be 35-40Minutes or less preferred for faster turn around time.
6. CMOS Camera for detection. The data collection and instrument control software should provide multicomponenting algorithm for deconvolution of multiple dyes, enabling addition of future dyes without changing the hardware.
7. The built-in emission filters to readily support broader range of fluorophores with a greater sensitivity for longer wavelength (red) dyes. The system should be readily configured and optimized for use of any of the following dyes or a combination thereof at any time, without any change in the hardware:
**FAM™/SYBR® Green, VIC®/JOE™/HEX/TET,
ABY®/NED™/TAMRA™/Cy®3, JUN®, ROX™/Texas, Red®, Mustang
Purple®, Cy®5/LIZ®, Cy®5.5**
8. Total reaction volume of minimum 10 uL to 30 uL, although lower would be preferred to economies the reagent consumption.
9. System should run in FAST and standard mode.
10. The installation specifications must demonstrate the ability of the system to distinguish between samples containing 5,000 and 10,000 template copies with a confidence level of 99.7% using an RNaseP instrument verification plate or alike. The system must be calibrated optically for the pure dyes during installation at sight.
11. **Computer:** A business line Dell computer (either notebook or tower) should be provided with the system.
12. Vendor should also supply complete range of TaqMan readymade and custom design assays.
13. System should have cloud connectivity for better data access and data analysis.
14. The supplier should be able to supply all the reagents and consumables for the operation of the system.

Technical specification for Automated System for Protein, Nucleic acid extraction and Cell separation.

- Instrument should be compatible run 6 sample of higher volume (upto 5ml processing volume or 12 samples with less than 1ml processing volume per run.
- The principle should be on magnetic bead based, to purify nucleic acids, proteins, cells, bacteria in a convenient, rapid and reproducible manner from different starting materials with high quality and yield.
- The processing volume should be flexible for all type of sample volumes from 30ul – 5000ul (microlitre).
- The instrument should have option to run 6 and 12 samples per run of 30-40 minutes.
- Entire processing time on instrument should be 30 -40 min, depends on various kits.
- Instrument should not have liquid transfer step involved to avoid sample cross contaminations.

- The instrument should be an open system for assay kits, able to accommodate any kit from any manufacturer.
- The particle collection efficiency should be >95% for better yield.
- The instrument should have an option of stand-alone mode and PC controlled mode.
- The system should have a memory for 200 internal protocols in stand-alone mode.
- The instrument should be open system for any magnetic bead based kits.
- The instrument should have an option of heating and cooling , for samples from +10°C to +75°C in RT and for elution strip from +4°C to +75°C in RT

- Decontamination feature with UV lamp option with UV exposure time maximum upto 10-16 hours.

- Easy protocol import / export option using USB stick.
- The software and computer should be supplied with the instrument and the software should not have licenses key for unlimited users' access.
- Instrument should be either CE mark or Europe regulations.



SPECIFICATIONS FOR FREEZERS OF -80 DEGREE

1. Settable temperature range of -50°C to -86°C
2. 13 cu. ft. capacity Upright, with (2) 1100 Watt compressors
3. 5" (127mm) non-CFC foamed-in-place polyurethane insulation; 4.5" in door provide best temperature uniformity
4. latch and handle for ergonomic handling and one hand operation with padlock capability
5. Temperature recovery time should be less than 23 Minutes after one minute complete Open Door activity including inner doors.
6. Temperature Hold Time during Power Failure: Minimum 3.6 Hours
7. Adjustable solid Stainless Steel shelves
8. A vacuum relief port allows easy re-entry after door openings
9. The microprocessor controller must monitor in one degree C increments, with digital display.
10. Triple -sealing silicone door gasket provides air-tight seal without heat Reduces ice build-up, easier to maintain and Prevents leakage of ambient air into freezing chamber
11. Heavy-duty dual wheel swivel locking casters.
12. Automatic voltage compensator responds to high and low voltages
13. Powder coat paint for a durable surface
14. Service valves provided to allow easy recovery of refrigerants and field servicing.
15. Front to back airflow with Removable, cleanable air filter
16. Hinged grill swings out for easy access to filter and battery
17. Two 10" tubeaxial fans to provide maximum cooling of the compressor housing, even one Fan fails, Compressor Keeps on Cooling by another Fan (Double protection)
18. Down-feed evaporator
19. 4" open x 12" long heavy duty hinge for ensuring positive closure and uninterrupted service
20. Should have on board Single RTD based PT1000 (1000-ohm Platinum RTD) for chamber temperature control and monitoring.
21. Dry contact, RS485 and 4-20mA remote contact as standard supply for Remote Monitoring and Central Monitoring
22. Eye Level Information centre for At-a-Glance Monitoring
23. Should have optional on board LN₂/CO₂ backup system for maintaining the set temperature during power failure.
24. Include NON-CFC REFRIGERANTS

SPECIFICATIONS FOR FREEZERS OF -20 DEGREE

1. Freezer must have (1) lockable insulated solid door
2. Freezer must have a capacity of 276L
3. Freezer must be manual defrost
4. Freezer must carry a CE mark
5. Freezer must have (4) casters standard
6. Freezer must have (1) 25mm diameter access port located at the rear of the cabinet
7. Freezer must use a (1) $\frac{3}{4}$ hp compressor
8. Freezer must use R404a refrigerant
9. Freezer must come standard with (4) baskets and (2) pull cover drawers
10. Freezer must have a keyed on/off switch
11. Freezer must have interior lighting with external on/off switch
12. Freezer must have hasp standard for attachment of secondary lock
13. Freezer must have digital temperature control with hi/lo audible and visual temperature alarms
14. Freezer must have compressor on/off indicator on control panel
15. Freezer must have mute button for alarms
16. Freezer must have low battery alarm
17. Freezer must have rapid freeze feature for fast cool down
18. Freezer must have ambient temperature display
19. Settable temperature range of -20°C to -40°C
20. Freezer must be preset to -40°C .
21. Freezer must use forced-air circulation to maintain internal conditions
22. Freezer must have a bottom mounted compressor
23. Freezer must have the exterior dimensions: 1745mm x 717mm x 710mm
(H x W x D)
24. Freezer must have the internal dimensions: 1205mm x 506mm x 505mm
(H x W x D)

