

**KERALA HEALTH RESEARCH AND WELFARE SOCIETY**

Regd .Office : TRIVANDRUM

A3-5527/25/KHRWS

18.05.2026

**E-TENDER NOTICE**

Invitation for installation of Transplant Immunology Lab KHRWS. The Kerala Health Research and Welfare Society (KHRWS) was established in the year 1973 under Travancore Cochin Literary Scientific and Charitable Societies Registration Act XII of 1955 to make better infrastructure facilities in the Medical Colleges and other Govt. Hospitals in the state and to strengthen the public Health Care System.

The society is functioning as its Registered Head Office at the GH Campus , Trivandrum and is having six regional offices.

- Regional Office , Thiruvananthapuram
- Regional Office, Kollam
- Regional Office , Kottayam
- Regional Office, Thrissur
- Regional Office , Kozhikode
- Regional Office, Kannur

Looking forward for a long standing relation with you.

Best wishes,

Sd/-  
Managing Director  
KHRWS

## **TENDER SCHEDULE**

1.	Tender No.	A3-5527/25/KHRWS
2.	Cost of tender Document	10000/- (inclusive of 18% GST)
3.	Estimated Cost / Unit	1,00,00,000/-
4.	Earnest Money Deposit	1,00,000/-
5.	Performance Security ₹	5% of the LOI/ Supply Order/ WO value – excluding GST (for successful tenderers)
6.	Validity of Performance Security	Up to 90 days after the date of completion of the contractual obligations

### **Important Dates:**

SI No.	Particulars	Date and time
1.	Online tender submission Start date	18.05.2026
2.	Online tender submission End Date	20.06.2026
3.	Date of online Bid Opening	22.06.2026

**Successful vendor should provide training support to our technical staffs in NABL approved lab and also deploy a dedicated technician to the lab to support our technical staff for testing (against 10 number of samples), installation and service support for all the machines.**

### **Technical Specifications for Transplant Immunology Lab:**

1. The vendor should provide a Turnkey setup as per the list of instruments provided below.
2. The vendor should supply the instruments with warranty as per the tender conditions along with AMC after the warranty period
3. The vendor will remain one point contact for the supply, installation and service of all the

instruments listed below.

4. The vendor should arrange for periodical training of our technical staffs at any NABL accredited lab.
5. The vendor should provide one dedicated technician at our lab, who is trained on all the assays on NGS HLA typing, Luminex antibody testing and flow cross match, against our committed number of tests per month.

**Instrument Specifications:**

<b>I</b>	<b>Bead Based Multiplexing Instrument</b>
	The instrument should have multiplexing capacity up to 500 targets per sample
	It should be compatible for both 96 and 384 well plates
	The maintenance protocols should be automated
	The vendor must provide compatible software for HLA result analysis
	The instrument should have 4 laser units for detection and quantification of the targets
	Separate UPS Must be provided by the vendor (3kVA capacity)
	CE IVD approved kits must be available for performing the following tests: HLA A, B, C, DRB1, DRB3/4/5, DQA1/B1, DPA1,B1, PRA Screening, PRA Quantification Class 1 and 2, Single antigen bead Assay Class 1 and 2
	Kits for performing Non-HLA Antibodies, C3D detection, MICA antibody, Donor Lysate based cross match must also be available either as RUO or IVD.
<b>II</b>	<b>Portable NGS sequencer</b>
	The instrument should be compact and portable. Compatible high-end laptop must be provided by the vendor along with the sequencer.
	The device can be used for both DNA and RNA sequencing.
	Users should be able to operate the system in an online mode, enabling full sequencing and analysis to be performed in the lab.
	The vendor must have compatible HLA typing reagent approved for Portable Sequencer with CE IVD Approval.
<b>III</b>	<b>Flow Cytometer</b>
	The instrument must be CE IVD & US FDA 510K approved
	The instrument software should have simplified system settings, data acquisition, and result exporting functions
	The instrument should have excitation and detection optical systems. The instrument should have option to upgrade the configuration at later date to use more lasers or optical filters
	The instrument should have minimum 2 Laser and 8 Color configuration.
	The instrument should have Fixed Alignment and built in Capability to automatically Check Laser Alignment during daily QC to ensure for Optimal Performance.
	The vendor should provide all the necessary reagents, controls and other consumables to perform the HLA Crossmatch test.

	Separate UPS with 3kVA capacity must be provided
<b>IV</b>	<b>UV Micro volume Spectrophotometer</b>
	The instrument should be compatible for measuring nucleic acid and protein samples using only 1-2 $\mu$ L
	The instrument should have options for measuring purified DNA, RNA, and protein concentration up to 30 Abs and calculate critical A260/A280 and A260/A230 purity ratios.
	The reading time should be fast and accurate with minimal sample volume
	The instrument should have sample retention technology to hold the sample in place. The samples must be loaded directly on the glass slide without the need for cuvettes or any other consumables.
	The system should have Xenon flashlamp light source. Wavelength Range 230 nm, 260 nm, 280 nm, Wavelength Accuracy $\pm$ 1 nm
	The system should have Lower Limit of Detection 2.0 ng/ $\mu$ L (1.6 ng/ $\mu$ L) dsDNA (RNA) 0.06 mg/mL (0.03 mg/mL) BSA (IgG)
	The instrument should have Data storage capacity of upto 1000 measurements saved locally; export data option to a USB device should also be available.
<b>V</b>	<b>Fluorometer</b>
	The instrument should measure the intensity of the signal from fluorescent dyes bound to specific biological molecules.
	The DNA concentration of a particular sample should be measured with standard reference.
	Sample throughput: 1 sample in less than 10 seconds,
	The reagent for measuring ds DNA Broad Range with standards, buffers and dye must be available.
	The compatible tubes for loading the sample into the fluorometer must be available.
	Sample data storage: 1,000 samples on board
	The instrument should have Light sources Blue LED (peak $\sim$ 470 nm), Red LED (peak $\sim$ 635 nm) Excitation filters Blue LED (430–495 nm), Red LED (600–645 nm) Emission filters Green (510–580 nm), Red (665–720 nm)
<b>VI</b>	<b>Vacuum Manifold and Pump</b>
	The device should be Compatible for 96 well plate
	Works on Vacuum driven liquid processing to deliver high, reproducible yields

	Vacuum pump should be provided with ¼ HP.
	Oil capacity of the pump should be at least 50ml.
	Flow rate of 50 Litres per minute. Flow Rate 50Hz
<b>VII</b>	<b>Magnet stand</b>
	The device must hold 16 standard 1.5 mL or 2 mL microcentrifuge tubes.
	Working volume must be between 10–1500 µL.
	The Sample Rack should have numbered spaces (1 to 8 on one side and 9 to 16 on the opposite side) for easy operations.
	Sample Rack design should ensure good visibility of your samples.
	The device should have compatible reagents for T Cell, B Cell and Total Lymphocyte separation.
<b>VIII</b>	<b>PCR Plate Centrifuge</b>
	Micro-plate centrifuge should have capacity to load 2 microplates: 96 & 384 well PCR plates
	The centrifuge should be microprocessor controlled with variable speed and time setting.
	The centrifuge should have Precise RPM setting from 500 to 2200 RPM with an accuracy of ±10 RPM
	The centrifuge should have Automatic lid release after run completion
	Brushless DC motor for easy maintenance.

## **SCHEDULE OF REQUIREMENTS**

<b>Instruments</b>		
<b>S.No</b>	<b>Instrument</b>	<b>QNTY</b>
<b>I</b>	<b>Bead Based Multiplexing Instrument</b>	<b>1</b>
<b>II</b>	<b>Portable NGS sequencer</b>	<b>1</b>
<b>III</b>	<b>Flow Cytometer</b>	<b>1</b>
<b>IV</b>	<b>UV Micro volume Spectrophotometer</b>	<b>1</b>
<b>V</b>	<b>Fluorometer</b>	<b>1</b>
<b>VI</b>	<b>Vacuum Manifold and Pump</b>	<b>1</b>
<b>VII</b>	<b>Magnet stand</b>	<b>1</b>
<b>VIII</b>	<b>PCR Plate Centrifuge</b>	<b>1</b>

<b>S.No</b>	<b>Reagents</b>
1	HLA NGS High resolution typing kit 11 loci 96 test
2	HLA A typing kit with Taq on Luminex 50Test
3	HLA B typing kit with Taq on Luminex 50Test
4	HLA C typing kit with Taq on Luminex 50Test
5	HLA DRB1 typing kit with Taq on Luminex 50Test
6	HLA DRB3/4/5 typing kit with Taq on Luminex 50Test
7	HLA DQA1/B1 typing kit with Taq on Luminex 50Test
8	HLA DPA1/B1 typing kit with Taq on Luminex 50Test
9	PRA Screening kit Class 1&2 on Luminex 96 test
10	PRA Quantification kit Class 1 on Luminex 24 test
11	PRA Quantification kit Class 2 on Luminex 24 test
12	Single Antigen bead Assay class 1 on Luminex 24 test
13	Single Antigen bead Assay class 2 on Luminex 24 test
14	Non-HLA Antibody kit on Luminex 20 test
15	C3d detection kit on Luminex 20 test
16	KIR typing kit on Luminex 20 test
17	Rapid Barcoding Kit 1 Pack
18	Flow cell (10.4.1) – 1 Nos
19	Flow cell washing kit – 1 NOS

20	DsDNA Quantification Broad range Assay kit Fluorometer 100 Test
21	Bovine Serum Albumin 50mg/ml – 1 Vial
22	HLA Positive Control Monoclonal IgG Class I – 100ug
23	HLA Positive Control Monoclonal IgG Class II – 100ug
24	HLA Negative Control - (0.5ug)
25	Direct Human Total Lymphocyte Isolation kit (100ml Whole Blood)
26	F(ab') <sub>2</sub> Human IgG Fc Antibody Fluorescein Conjugated – 1mg
27	PC7 anti-human CD3 – 100 Test
28	PE anti-human CD19 – 100 Test
29	Sheath Fluid – 10 L Flow cytometry
30	Daily QC – 20ml Flow Cytometry
31	Cleaning Solution – 1litre Flow Cytometry
32	Flow Cleaning agent – 500ml
33	Compensation kit – 2 vials
34	PBS Buffer 10X – 500ml
35	RPMI 1640 – 500ml
36	DTT – 5g
37	DPBS + 2% FBS – 500ml
38	Pronase – 1G
39	Sheath fluid - 20 Litre Luminex FM3D
40	Luminex FM3D calibration kit 25 uses
41	Luminex FM3D performance verification kit 25 uses
	<b>Consumables</b>
42	8 well strip tubes and caps 125 strips
43	Costar PCR Plates 96 well 25 plates
44	Filter plates 96 well 10 plates
45	Optical sealer 100 seals
46	Aluminium sealer 100 seals
47	5ml Round Bottom Tube Polystyrene Cell isolation - 25 Tubes
48	Sample tubes – 250tubes/pack
49	Molecular Grade Ethanol – 500ml

Sd/-

**Managing Director**