<u> Amendment - II</u>

Dated: 17.03.2017

Subject: Amendment of e- Tender for Kalpana Chawla Govt. Medical College, Karnal..

Ref.IFB : HSCC/KCGMC/Medical Equipment /2016-17/MC-02 dated 20.02.2017

A) Extension of bid submission: THE BID NOW STANDS EXTENDED TO 24.03.2017 AT THE SCHEDULED TIME & PLACE

Sl. No.	Description	Revised Schedule as amendment
i.	Dates of sale of tender enquiry documents	20.02.2016 to 17.03.2017 now stands revised to 24.03.2017 (upto 14.00 hrs.).
ii.	Bid Document can be downloaded from	www.tenderwizard.com/HSCC, www.eprocure.gov.in, www.hsccltd.com
iii.	Closing date & time for receipt of Tender	24.03.2017 , 14:30 hrs IST
iv.	Time and date of opening of Techno – Commercial tenders	24.03.2017, 15:00 hrs IST
v.	Venue of Opening of Techno Commercial Tender	HSCC(I) Ltd, E-6(A), Sector-1, Noida(UP)

B) The revised Technical Specifications Following Items, Addition of quantity & certain clauses Stands Amended as follows:

C). AMENDMENT IN CLAUSE, TECHNICAL SPEFICATIONS & ADDITION OF QUANTITY

Related Clause where "*National Small Industries Corporation or NSIC, New Delhi*" is mentioned should now be read as "*National Small Industries Corporation or NSIC*"

V. DEPARTMENT OF MICROBIOLOGY

SL NO.	NAME OF EQUIPMENT	QTY (Nos)	EMD INR (Rs.)
1	ELISA READER AND WASHER	4	32,000.00
	3 Nos for Department of Microbiology & 1 No for		
	Department of Biochemistry.		

I. DEPARTMENT OF PHYSIOLOGY

6. SPECIFICATIONS FOR POLYGRAPH MULTICHANNEL

(ITEM NO 6 under B. AMPHIBIAN AND MAMMALIAN EXPERIMENTS)

THE SYSTEM SHOULD BE ABLE TO RECORD AND ANALYSE:

- 1. PULSE, PPG, BP, ECG, PULSE TRANSIT TIME, HEART RATE VARIABILITY.
- 2. ECG MULTILEADS CONFIGURATIONS FOR REAL TIME CARDIAC AXIS AND VECTOR ANALYSIS.

- 3. MICROPHONE FOR RECORDING AND LISTENING HEART AND LUNG SOUND STUDIES.
- 4. PULSE WAVE VELOCITY, DEEP BREATHING TEST, VALSALVA MANEUVER.
- 5. SPO2, ACCELERATION (3 AXIS), ACTIVITY, GSR AND TEMPERATURE, EEG, EMG, NCV, ETC.
- 6. DYNAMOMETER TO STUDY HAND GRIP TESTING.
- 7. BALANCE BOARD/SENSORS FOR POSTUROGRAPHY AND SWAY ANALYSIS.

HARDWARE SPECIFICATIONS:

- 1. SIMULTANEOUS RECORDING FOR ATLEAST 12 AND MORE PARAMETERS.
- 2. HIGH SAMPLING RATE OF 40KHz OR MORE.
- 3. SHOULD HAVE FULLY ISOLATED STIMULATOR FOR CONSTANT CURRENT AND VOLTAGE STIMULATION OUTPUT RANGE (0-20mA) with pulse stimulation 50-200microsec or better range stimulator provided.
- 4. MUST HAVE PREFFERED PARAMETERS FOR WIRELESS MONITORING ECG, SPO2, PPG, RESPIRATION, GSR AND TEMPERATURE WITH DATA LOGGING ON 8GB AND REAL TIME ACQUISITION AND ANALYSIS MODE.
- 5. THE SOFTWARE SHOULD HAVE STEP BY STEP INSTRUCTIONS, PROTOCOL AND EXPERIMENTAL DESIGN FOR PERFORMING VARIOUS EXPERIMENTS IN PHYSIOLOGY TECAHING APPLICATIONS. ALSO SHOULD HAVE SAMPLE DATA (PRERECORDED DATA) FOR ANIMAL EXPERIMENTS FOR DEMONSTARTING TO THE STUDENTS.
- 6. FACILITY FOR AUTIOMATIC ANALYSIS WHILE DATA RECORDING AND AFTER RECORDING; FOR ECG, HRV, BP, PEAK ANALYSIS, SPECTRUM ANALYSIS, ETC.
- 7. SHOULD HAVE AN OPTION FORT MATHEMATICAL FUNCTION AND STATISTICAL ANALYSIS AND EXPORT OPTIONS TO OTHER SOFTWARE LIKE MAT LAB, EXCEL, QUICKTIME, WAV, TEXT, ETC FOR DESIRED INTERPRETATION OF DATA.
- 8. THE SOFTWARE SHOULD PROVIDE AN EASY FILE SHARING OPTION TO A DISTANT USER WITHOUT INVOLVING ANY COST WITH A 5 YEAR OF FREE UPDATES AND UPGRADES.
- 9. COMPATIBLE DESKTOP COMPUTER (13, 4GB RAM, 500GB HDD, 18INCVH MONITOR, WINDOWS OS), LASERJET PRINTER AND 1 KVA UPS.
- 10. DOCUMENTATIONS CE/FDA/ISO AND OTHER SAFETY CERTIFICATES MUST BE PROVIDED.
- 11. MANUFACTURER SHOULD HAVE EXPERIENCE OF MANUFACTURING AND INSTALLATION OF THE QUOTED PRODUCT FOR ATLEAST 5 YEARS.

10. Specifications for Computerized Autonomic Function Testing System

(ITEM NO 10 under C. EQUIPMENT FOR RESEARCH LAB)

The system should be able to record and analyse.

- 1. Non Invasive beat to beat Blood pressure monitoring in Human with Systolic, Diastolic and other hemodynamic parameters (Cardiac Output, SV, TPR, Baro-reflex sensitivity, Blood Pressure variability etc.) by finger arterial pressure measurement.
- 2. Continuous ECG monitoring and recording with real time HRV Analysis.
- 3. Pulse, respiration, airflow, GSR, temperature measurements.
- 4. Dynamometer to study handgrip strength profile with balance board for static posturography studies.
- 5. Non-Invasive Tonometer for Vascular function Testing
- 6. Number of channels: 8 or more channels high speed USB Data Acquisition system.
- 7. Range: $\pm 2 \text{ mV}$ to $\pm 10 \text{ V}$ and Sampling rate of 10 KHz or more per channel (aggregate speed),
- 8. ADC resolution = 16 bits on all gain ranges
- 9. Multichannel Universal Bio-amplifier for recoding 12 leads ECG.
- 10. The Beat to beat Blood pressure monitor should be supplied with HCU and Finger cuffs of 3 different sizes (i.e. small, medium & large) and should have accuracy: 1% of full scale (max. 3 mmHg), zeroing automatic.
- 11. Transducers for Pressure, Pulse Plethysmography, and Respiration, Surface Temperature probe, NIBP(Non-Invasive blood pressure), Hand dynamometer and Wireless Heart rate kit with other accessories as required.

- 12. Licensed Software: It should have various automatic analysis modules for ECG, HRV, Blood Pressure, Cardiac output, Peak analysis, spike histogram etc.
- 13. Online & offline analysis with various export options for common formats.
- 14. The software should be provided with a 5 year of free updates and upgrades.
- 15. Computer: The system should be desktop based system with at least Intel Core i7, Genuine Windows 8 professional, 20 inch LED Monitor, 4GB RAM, 500GB SATA Hard Drive, DVD. Facility for internet connectivity, Laser printer.
- 16. Proper Demonstrations to be carried out before finalizing.
- 17. Onsite training should be provided by the company experts for 7 -10 days.
- 18. CE, ISO, FDA and other safety certificates must be provided.
- 19. The system should have world-wide installation, acceptance and recognition in published research papers globally. Performance certificates should be provided from the users using the system in India/abroad.

IV. DEPARTMENT OF PATHOLOGY

4. Automatic Tissue Processor, Histokinette

- a. Fully automatic carousel type tissue processor.
- b. Fully Enclosed system, floor standing model, compact design space saving for the optimum use of laboratory space, on rollers easy to move.
- c. Laboratory environment safety having triple protection hazardous fume extraction system at processing retort, activation carbon filter and external exhaust system for the maximum safety of user.
- d. Computerized monitoring multiple programming facilities.
- e. Ergonomic control panel with full protected keyboard and LCD.
- f. Capacity: 100-200 cassettes.
- g. Provision of Gentle agitation in reaction chamber.
- h. Automatic transfer of reagents and uniform reagents temperature.
- i. Automatic fluid level sensor.
- j. Minimum 3 wax baths with adjustable temperature from 40° C to 70° C.
- k. Provision of vacuum infiltration.
- 1. Provision of cleaning of paraffin from reaction chamber after the completion of the process.
- m. Provision of lock with password.
- n. Provision of Audible alarms, error message and warning codes.
- o. Easy editing and changing of programs, even during a processing run.
- p. Infiltration time separately programmable for each station.
- q. Machine should have the option of interrupting an automatic process for reloading or removing cassettes if needed to before the end of a run.
- r. Baskets should be automatically immersed in a station during the power failure.
- s. Indication of date, time, remaining time in process step, step number and reagent description.
- t. Delay timer up to 7 days.
- u. Drain time should not exceed 60 sec.
- v. Safety against reagent fumes.
- w. Safety device to protect over vacuum & overheating.
- x. UPS of appropriate rating for safety against power failure with six hours power backup.
- y. Documents supporting track record & satisfactory performance from Institutions of National importance (Minimum of One Institute) should be provided.
- z. The equipment should be USA- FDA/European- CE approved