

## Annexure-C

Reference No. Wide Circulation through AMU website

Co-ordinator, DRS-I  
DEPARTMENT OF ILMUL ADVIA  
Ajmal Khan Tibbiya College & Hospital  
Aligarh Muslim University  
ALIGARH-202002 (INDIA)

Revised

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Dated:10-04-2013

Dear Sir,  
Sealed quotations /Tenders are invited for the following articles on the terms and conditions printed overleaf.

Quotations should reach this office on 22-04-2013 by 03:00 p.m.

S.No	Qty	Particulars / Specification
1.	01	<p><b><u>Fully Automatic Langendorff system</u></b></p> <p>Fully automated, compact profile system with constantly oxygenated and temperature controlled unit that includes two perfusate chambers, heart chamber, heated junction block and a thermostat controller. It should allow switching between constant flow and constant pressure using a push button switch. It should allow heart perfusion from Rat, mouse and guinea pig hearts.</p> <ul style="list-style-type: none"> <li>- The pump controller should control the peristaltic pump by providing an analog output corresponding to calibrated flow rates. And provides pressure/flow feedback system to the peristaltic pump.</li> <li>- The system should work on Constant flow and constant pressure modes. A simple switch should allow switching between both the modes.</li> <li>- It should not have any elevated reservoirs to maintain the pressure Instead it should have a peristaltic pump along with using a pump controller to be connected with the software.</li> <li>- <b>Parameters measured:-</b> Coronary Vessel Function, Left Ventricular pressure/ Developed Pressure/systolic and diastolic pressures, Left Ventricular dP/dt maximum and minimum, perfusate temperature, perfusion pressure, perfusion flow, Cardiac electrical activity and Mono-phasic action potentials, coronary flow and Heart rate.</li> <li>- A High speed USB based Eight Channel DAS with Max sampling speed 400 KHz, ADC 16 Bits. Along with Analysis Software that tabulates the results automatically or manually, generate instantaneous Hill curves, displays single or multiple dose response curves, calculates EC50 and Hill slopes. Along with HRV, ECG, PEAK Analysis.</li> <li>- It should allow 32 channels of real time analyses along with user to export in file formats like Binary, Axon, IGOR, MATLAB, Excel, Graph Pad Prism, QuickTime, Wav, Text etc.</li> <li>- The system should have independent stimulator outputs with output resolution of 16 bits and Software provides Pulse, Step, Ramp, wave etc.waveforms stimulus generating options. Have an option for Electrical pacing of Isolated Heart.</li> <li>- The Software controlled amplifier should support software automatic zeroing of the offset. It should allow simple two point calibration and multi point calibration for highly accurate studies. To be supplied with compatible pressure transducers. Latex Balloon along with LVP Catheter.</li> <li>- The Software controlled, high impedance differential Bio-Amplifier with a range of +5 <math>\mu</math>V to+ 100 mV along with compatible crocodile and spring clip electrodes</li> <li>- Software selectable High pass filters: - 0.1, 0.3,1,3 &amp;10 Hz along with user define Digital filters.</li> <li>- Software controlled temperature preamplifier along and T-Type Thermocouple with an operating range: -273 to 150 °C &amp;accuracy of <math>\pm 0.1</math> °C for monitor perfusate temperature.</li> <li>- The software should have a free update &amp; upgrades for a period of 5yrs.</li> <li>- Free file sharing facility with distinct user free of cost.</li> <li>- Manufacturer must be ISO 9001:2008 or latest certified company &amp; comply with safety standards.</li> <li>- System should carry at least 1 years Manufacturer's warranty and local designated service providers must be available in Delhi and/or any city in India for immediate service and to rectify any troubleshooting of equipment (include hardware and/or software).</li> <li>- Good quality and imported &amp; with warranty.</li> </ul>

