

**DR. PANJWANI CENTER FOR MOLECULAR MEDICINE AND DRUG RESEARCH  
INTERNATIONAL CENTER FOR CHEMICAL AND BIOLOGICAL SCIENCES  
UNIVERSITY OF KARACHI  
KARACHI-75270**

**TENDER NOTICE NO. PCMD-190112**

Sealed tenders are invited from the sales tax and income tax registered firms for purchase/import of the scientific equipments and appliances for the Center. The detail and specifications of the items can be collected from the date of publication of this advertisement in the newspapers, from Purchase Office of the Center, on any working day between 9.00 a.m. to 12.30 p.m., (except Friday), on payment of Rs. 300/- (non-refundable), in shape of a pay order (Demand Draft by the out of Karachi bidders), in favor of the Co-Director, P.C.M.D., or downloaded from the websites [www.iccs.edu](http://www.iccs.edu) and [www.pprasinhd.gov.pk](http://www.pprasinhd.gov.pk) The tenders can be submitted with 2% of the bid value as bid security, in shape of a pay order in favor of the Co-Director, P.C.M.D. latest by 10.30 a.m. on 19-01-2012. The tenders will be opened in Purchase Office of the Center at 11.00 a.m. on the same day in presence of the bidders or their representatives. The Procuring Agency may reject all or any bid subject to the relevant provision of SPP rules.

***CO-DIRECTOR***

## Scientific Equipments for New Cell Culture Facility at PCMD

### 1. Biological Safety Cabinets (size: 1.2 m) Class II Type A2

Quantity:3

For the protection of product, personnel and the environment  
Nominal Size: 1.2 m  
External Dimensions: H×D×W; 54.7×29.1×52.8 inch  
Internal Dimensions: H×D×W; 26.4×22.4×47.8 inch  
Average air flow velocity: Inflow, 90 fmp and down flow, 60 fmp  
Filter type: ULPA for >99.995% particle size between 0.1-0.3 μm  
Fluorescent lamp intensity: 1100 Lux  
With front sash assembly  
With microprocessor control, alarm, monitoring system  
UV light retrofit kit provision  
IV Bar retrofit kit provision  
Electrical outlet retrofit kit provision

#### Accessories

Electrical outlet: Europe/World wide  
Service valves or petcock for Gas/Air/Vacuum  
IV Bar w/six stainless steel hooks  
Germicidal Ultraviolet Lamp  
PVC Armrest  
Solenoid valve

### 2. Biological Safety Cabinets (size: 0.9 m) Class II, Type A2

Quantity 2

For the protection of product, personnel and the environment

#### Dimensions

0.9 m (3')  
External= 1115×815×1540 mm  
Internal Dimensions= 955×623×670 mm

Airflow Velocity (Inflow)= 0.53(m/s)/105(fpm)  
Airflow Velocity (Downflow)=0.35(m/s)/70(fpm)

ULPA filter having 0.1-0.3 microns pore size  
Fluorescent lamp intensity: 1100 Lux  
With front sash assembly  
With microprocessor control, alarm, monitoring system  
UV light retrofit kit provision  
IV Bar retrofit kit provision  
Electrical outlet retrofit kit provision

### **Accessories**

Electrical outlet: Europe/World wide  
Service valves or petcock for Gas/Air/Vacuum  
IV Bar w/six stainless steel hooks  
Germicidal Ultraviolet Lamp  
PVC Armrest  
Solenoid valve

### **3. Biological Safety Cabinet**

**Quantity 1**

#### **Class III, Type B**

Provide highest level of product, operator and environmental protection from infectious/biohazardous aerosols.

Suitable for microbiological work with agents assigned to biological safety level 3-4.  
To work with deadliest biohazards, bacteria, viruses and microorganisms.

#### Dimensions

1.2 m (4')

External= 1665 x 850 x 2250 mm  
65.6" x 33.5" x 88.6"

Internal Dimensions= 1130 x 560 x 650 mm  
44.5" x 22.0" x 25.6"

Initial Airflow Volume= 603 m<sup>3</sup> /h ( 355 cfm)

ULPA filter having 0.1-0.3 microns pore size  
With Pre filter

Fluorescent lamp intensity: >2000 Lux

With front sash assembly

With microprocessor control, alarm, monitoring system

UV light retrofit kit provision

IV Bar retrofit kit provision

Electrical outlet retrofit kit provision

#### Accessories

Electrical outlet: Europe/World wide  
Service valves or petcock for Gas/Air/Vacuum  
IV Bar w/six stainless steel hooks  
Germicidal Ultraviolet Lamp  
PVC Armrest  
Solenoid valve

### **4. CO<sub>2</sub> incubator, Water Jacketed**

**Quantity:4**

Exterior (W x H x D) 26 x 39.5 x 25" (66.8 x 100.3 x 63.5 cm)

Interior (W x H x D) 21.3 x 26.8 x 20" (54.1 x 68.1 x 50.8 cm)

Temperature control of  $\pm 0.1^{\circ}\text{C}$

Temperature range of  $5^{\circ}\text{C}$  above ambient temperature up to  $55^{\circ}\text{C}$ ,

Temperature uniformity at  $37^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$   
CO<sub>2</sub> Sensor TC or IR  
CO<sub>2</sub> control: Better than  $\pm 0.1\%$   
CO<sub>2</sub>-range (0-20 % CO<sub>2</sub>)  
Humidity rH Ambient to 95% at  $37^{\circ}\text{C}$

With all fittings including fill port, drain port, access port with filter, CO<sub>2</sub> in let, unit heat load  
Shelves

#### Accessories

HEPA and Inline Filter Kit  
Additional Shelf Stainless Steel (with Installation Channel)

### **5. Centrifuges (refrigerated)**

**Quantity: 4**

Suitable for cell culture laboratory  
Operates with both fixed-angle and swing-bucket rotors (interchangeable).  
Operate with speed, rcf, and radius correction values  
Speed in increments of 10 rpm from 200 rpm to maximum  
Individual user programs  
Short-spin key with selectable rotational speed  
Adjustable from  $-9^{\circ}\text{C}$  to  $40^{\circ}\text{C}$   
Maximum speed: 2.750 x g (4.400 rpm)  
Standby refrigeration to maintain a particular temperature following use  
"Fast Cool" function to quickly reach the desired temperature  
"At Set rpm" function for precise centrifugation  
Dimensions (W x D x H in cm): approx 70 x 61 x 35  
Power supply: 220/230 V,  
Braking option times for the levels 0 to 9 (in seconds)  
Rotor, buckets, lids and adapters are autoclavable

#### Accessories

Swing bucket rotor with:  
4 x 250 mL rectangular buckets and 4 MTP buckets  
Max. speed: 5.000 rpm  
Flexible Adapters for 15 ml and 50 Falcon tubes and 5 ml tubes  
Lids for aerosol-tight centrifugation  
Swing bucket rotor with adaptors for 96-well plates and cell culture plates  
  
Fixed-angle rotor  
Max. speed: 11.000 rpm  
For Conical tubes, such as 15 and 50 mL Falcon tubes,

### **6. Inverted Phase Microscope with Camera, Tablet PC, and Software**

**Quantity: 4**



Compact for routine use in cell culture  
Fixed binocular tube, including 2 eyepieces  
Revolving nosepiece  
Plain, movable stage appropriate for cell culture plates, dishes and 96-well plates  
Coarse and fine focusing  
Phase Contrast and Brightfield  
10x, 20x 40x and 100x Objectives  
Variable filters  
Heatable glass insert plate with controller  
Camera: at least 1 Mpx, colour CCD camera with Tablet PC and software. All accessories for camera installation and use including camera head, software, Compact Flash Card etc

### **7. Inverted Fluorescent Microscope with Camera, Tablet PC, and Software**

#### **Quantity: 1**

Compact for routine use in cell culture  
Fixed binocular tube, including 2 eyepieces  
Revolving nosepiece  
Plain, movable stage appropriate for cell culture plates, dishes and 96-well plates  
Coarse and fine focusing  
Phase Contrast and Brightfield  
10x, 20x 40x and 100x Objectives  
Variable filters  
Heatable glass insert plate with controller  
Camera: at least 1 Mpx, colour CCD camera with Tablet PC and software. All accessories for camera installation and use including camera head, software, Compact Flash Card etc  
Filter sets for DAPI, FITC and TxR

### **8. Liquid Nitrogen Dewar**

**Quantity:2**

For ultra-cold storage of biological specimens in liquid nitrogen.  
Liquid phase  
-190 °C  
Secure locking clasp  
Stainless steel racks that accommodate Cryoboxes for 2 mL freezing vials.  
Cryoboxes  
Sample storage for 1000 vials  
Liquid Nitrogen capacity: 40 liters

### **9. Upright -32<sup>0</sup>C Freezers**

**Quantity:3**

Complete with racks  
Digital Temperature Control  
Alarm System  
Approx dimensions: 52x20x20"  
Frost free

**10. Upright Refrigerators**

**Quantity:3**

Without an autodefrost freezer  
Temperature range 2–8°C.  
12 cu. Ft.:  
Approx Dimensions: 62 3/8"H x 24 7/8"W x 23 1/8"D  
5-6 Shelves  
CFC Free Refrigeration with Super Quiet Operation  
Digital Temperature Display (optional)  
Alarms with Digital Display

**11. Vacuum / aspiration pumps**

**Quantity:4**

Compact suction pump for with all accessories (suitable for cell culture)  
With 2 liter conical flasks  
Rubber corks/ adaptors and tubings  
Dimensions (approx): 11" L x 4-3/4" W x 8-3/4" H  
Vacuum: 3 Pa (8.86 x 10<sup>-4</sup> in Hg)

Alternate: Bottletop aspirator that removes supernatants, cell culture media, and other liquids from dishes, flasks, culture bottles, centrifugation tubes, multiwell plates, and more.  
Small, portable, and does not require an external vacuum or power source. Plunger stroke (up to 25mL of aspiration).  
Autoclavable for Sterile Applications  
10 Mountable reagent bottles

**12. Water Bath**

**Quantity:3**

**7 lit capacity**

With stainless steel, lift-up, thermal insulating lid with inner camber  
With microprocessor controlled temperature regulator  
Rapid heat-up, Digital display in steps of 0.1°C  
Temperature range: ambient +5°C + to 99.9°C, and with a water level regulator from approx. 3°C above tap water temperature to 99.9°C.  
Drain cock at the back of the bath

**13. Water Bath**

**Quantity:2**

**4 lit capacity**

With stainless steel, lift-up, thermal insulating lid with inner camber  
With microprocessor controlled temperature regulator  
Rapid heat-up, Digital display in steps of 0.1°C  
Temperature range: ambient +5°C + to 99.9°C, and with a water level regulator from approx. 3°C above tap water temperature to 99.9°C.  
Drain cock at the back of the bath

**14. Electronic Laboratory Gas Burner**

**Quantity:4**

Biological safety compatible  
With IR Sensor  
With Foot pedal  
(Fuego SCS Typ/ type 8.000.000)

**15. Thermal rocker with acrylic cover**

**Quantity:2**

Dimensions: 41W x 34D x 20H cm (16 x 13<sup>1/4</sup> x 7<sup>3/4</sup>" )  
Platform size: 36 x 36 cm (14<sup>1/4</sup> x 14<sup>1/4</sup>" )  
Speed 0–100 cycles per minute  
Temperature Control ±0.5°C  
Temperature Range: Slightly above ambient to 100°C  
Temperature display LED  
Nonskid surface to keep samples in place.

**16. Vortex mixer**

**Quantity:4**

Speed range: 0 - 3,400 rpm  
Operating modes: Touch or continuous  
Ambient operating range: 4° to 65°C  
Dimensions (WxDxH): 14 x 16 x 13 cm

Accessories:

Heads for :  
1.5/2.0 ml tubes,  
0.5 ml tubes  
0.2 ml tubes (or PCR strips)  
1 microplate  
15 ml tubes  
50 ml tubes

**17. Pipettes, 2–20µL**

**Quantity:4**

2–20µL, Adjustable, Increments 0.02µL, Accuracy ±3.0 to 1.0%, Precision 2.5 to 0.4%.  
Secondary calibration option. Fully autoclavable. Resistant to chemical, thermal and  
mechanical stress. Volume display: 4 digits. Graduation markings in digits. Volume adjustment  
lock

**18. Pipettes, 20–200µL**

**Quantity:4**

20–200µL, Adjustable, Increments 0.2µL, Accuracy ±1.8 to 0.6%, Precision 0.7 to 0.2%

Secondary calibration option. Fully autoclavable. Resistant to chemical, thermal and mechanical stress. Volume display: 4 digits. Graduation markings in digits. Volume adjustment lock

**19. Pipettes, 100–1000 $\mu$ L**

**Quantity:4**

100–1000 $\mu$ L, Adjustable, Increments 1.0  $\mu$ L, Accuracy  $\pm$ 1.0 to 0.6%, Precision 0.6 to 0.2%. Secondary calibration option. Fully autoclavable. Resistant to chemical, thermal and mechanical stress. Volume display: 4 digits. Graduation markings in digits. Volume adjustment lock.

**20. Multichannel Pipettes**

**Quantity: 3 sets**

(8 channel)

With Volume adjustment, Control button, Volume display: 4 digits, Ejector Calibration display & adjustment opening

Volume range ( $\mu$ l)

0.5-10

10-100

30-300

**21. Pipette Aid (Liquid dispenser)**

**Quantity:4**

For graduated and one mark pipettes from 0.1 to 100ml  
Valve control for sensitive control of the meniscus,  
Controlled setting of the pumping efficiency  
Aspirating speed: ~25 ml in 5 sec  
One-finger control for the Flow-Out and Blow-Out functions  
Cordless work for up to 6-7 hours  
Autoclavable pipette adapters and filter holders  
Active pressure compensation

Accessories

Wall holder

Charger

Rechargeable batteries (8)

Filters (0.45 $\mu$ m) (50)



## SUMMARY SHEET

The tender will liable to be rejected if this form will not accompan<sup>y</sup> the tender bid / quote

SERIAL No.	BID VALUE	FOREIGN CURRENCY	CONVERSION RATE	PRICE IN PKR

<b>TOTAL BID VALUE IN PKR</b>	
<b>Earnest Money @ 2% in PKR</b>	
Payorder / Bank Draft No:	Date:
<b>Signature</b>	<b>Seal:</b>