

# Republic of the Philippines VISAYAS STATE UNIVERSITY

Visca, Baybay City, Leyte



## PURCHASE REQUEST

PR #: TF-2021-09-01164

Date: 10-01-2021

Dept./Office: CVM

Category: Laboratory Equipment

Section/End-User: Santiago T. Peña Jr.

Funding Source: Trust Fund

Project Title/Code: PCAARRD 20201050-

1.1001/Enhancement of the Visavas State University

Semen Laboratory for Boar Semen Cryopreservation

| Item<br># | Item Description                                 | Unit | Qty | Unit Cost  | PAR/ICS              | Total Cost |
|-----------|--|------|-----|------------|----------------------|------------|
| ( )       | Benchtop Refrigerated Centrifuge<br>Complete Set | set  | 1   | 745,000.00 | SANTIAGO T, PEñA JR. | 745,000.00 |

## Specification:

- Swing-bucket rotors and adapters accommodate tubes and bottles from 0.2 mL to 750 mL
- Plate rotors for centrifugation of all types of MTP, PCR, cell culture, or Deepwell Plates
- · Fixed-angle rotors for high-speed applications in tubes from 0.2 mL to 85 mL
- High centrifugation speed of up to 20,913 × g (14,000 rpm)
- · Aerosol-tight Eppendorf QuickLock® caps and lids for easy, one-hand operation
- · Centrifuge lid with soft-touch lid closure
- · Low access height of 29 cm for easy loading and unloading of samples
- · Quiet operation to improve your work environment
- · Compact footprint saves valuable bench space
- · Automatic rotor recognition and imbalance detection for maximum operational safety
- . Temperature range from -9 °C to 40 °C
- · FastTemp function for fast pre-cooling
- · Continuous cooling maintains a constant temperature after the run has been completed your samples stay cool
- · ECO shut-off engages after 8 hours of non-use to reduce energy consumption and to extend compressor life
- Dynamic compressor control (DCC) technology for optimized cooling performance

## Max, capacity

Conical tubes: 56 × 15 mL/ 28 × 50 mL

Blood collection tubes: 100 x 13 mm/ 80 x 16 mm

Plates: 16 × MTP/ 4 × DWP

### AVR Included

| 2 | Cold Storage Boar Semen Preservation Cabinet | unit | 1 | 110,000.00 | SANTIAGO T. PEñA JR. | 110,000.00 |
|---|--|------|---|------------|----------------------|------------|
|---|--|------|---|------------|----------------------|------------|

## Specification:

- Used to hold/store boar semen at 15-17 degrees celsius
- · AVR incuded

| 3 Controlled-Rate Programmable Freezer | unit | 1 | 2,000,000.00 | SANTIAGO T. PEñA JR. | 2,000,000.00 |
|--|------|---|--------------|----------------------|--------------|
|--|------|---|--------------|----------------------|--------------|

Specification:

- Used for the cryopreservation of any biological product (semen, plasma, blood cells, tissue, gametes, etc.).
- Sample capacity: 420 mini straws / 240 medium straws MicroDigit Cool
- · The chamber contains 6 freezing racks
- · Ideal with Pressurized 60-liter LN2 container with hose and wheels
- · Controlled deep freezing
- External dimensions: 600 x 380 x520 mm
- Internal dimension: 490 x 325 x 230 mm
- · Weight: 38 kg Volume: 26 L
- · Air displacement: 2 650 rpm / 495 m3/h
- Dimensions and weight of control box: 360 x 370 x 150 mm / 7 kg
- Working temperature: -145°C to +45°C
- . Cooling rate: -0.1°C to -60°C / minute
- Operating pressure: 1.3 to 1.5 bars / 18.8 to 21.7 psi
- · Nitrogen consumption per cycle: 6 to 8 liters
- · Automatic Voltage Regulator (AVR) included

| 4 | Cryoshipper with Protective Shipping Container | unit | 1 | 165,000.00 | SANTIAGO T. PEñA JR. | 165,000.00 |
|---|--|------|---|------------|----------------------|------------|
|---|--|------|---|------------|----------------------|------------|

#### Specification:

CryoShippers are designed for the safe transportation of biological samples (frozen sperm, oocytes, and embryos) at cryogenic (-150°C or colder) temperatures.

Utilizes advanced QWick Charge material that charges with liquid nitrogen in fewer than two hours, providing the capacity for same-day vapor shipping. Manufactured from durable, lightweight aluminum, both series employ a hydrophobic compound, which absorbs the liquid nitrogen to ensure dry, spill-free vapor-phase shipping. In addition, a protective shipping carton is available for this model to ship your samples with a "non-hazardous" classification throughout the world, thus reducing costs and helping to assure sample viability.

### **FEATURES:**

- · Low liquid nitrogen consumption
- · Convenient lightweight package
- · Durable, tamper-proof lid design
- · High strength neck tube reduces liquid nitrogen loss
- Strong, lightweight aluminum construction
- · Advanced chemical vacuum retention system
- · Hydrophobic liquid nitrogen absorbent system
- CHARGES IN LESS THAN TWO HOURS
- · Warranty: 3 year vacuum

#### **DETAILS:**

- . Static Holding Time Days: 21
- Weight Empty lb. (kg): 11.0 (5.0)
- Weight Charged vapor lb. (kg): 17.0 (7.7)
- Weight Full liquid lb. (kg): 21.0 (9.5)
- · Maximum Storage Capacity
  - Number of Canisters: 1
  - No. of 1/2 cc Straws 10/cane: 120

o No. of 1/2 cc Straws 1 Level Bulk: 210

o No. of 1/4 cc Straws 1 Level Bulk: 452

No. of 1.2 & 2.0 ml Vials 5/cane: 40

o No. of 1.2 & 2.0 ml Vials 6/cane: 48

## Performance

o Liquid Nitrogen Capacity L: 4.3

o Static Evaporation Rate L/day: 0.20

#### Unit Dimensions

o Neck Opening in (mm): 2,00 (51.0)

Overall Height in (mm): 19.4 (492)

o Outside Diameter in (mm): 8.70 (222)

o Canister Height in (mm): 11.0 (278)

o Canister Diameter in (mm): 1.81 (46)

| 5 | Vertical Cold Cabinet Set | set | 1 | 1,550,000.00 | SANTIAGO T. PEňA JR. | 1,550,000.00 |
|---|---------------------------|-----|---|--------------|----------------------|--------------|
|---|---------------------------|-----|---|--------------|----------------------|--------------|

## Specification:

- The vertical cold cabinet is used to lower the temperature to 4 degrees celcius.
- · It is specially designed to receive any filling and sealing equipment for cryopreservation of boar semen in straws.
- . It has two motors, to adapt to the tropical conditions of some countries
- Length 2.2m x Height 2.1m

| Automatic Voltage Regulator (AVR) included                               |                  |           |                                  |            |                |              |           |  |  |  |
|--|------------------|-----------|----------------------------------|------------|----------------|--------------|-----------|--|--|--|
|  | TOTAL            |           |                                  |            |                | 4,570,000.00 |           |  |  |  |
| Purpose: For use in the PCAARRD-VSU boar semen cryopreservation project. |                  |           |                                  |            |                |              |           |  |  |  |
| Checked by:  | 4 Onever         | 1         | Funds Available:                 |            |                |              |           |  |  |  |
|  | ELIZABETH S. C   | UEVEDO    | NICK FREDDY R. BELLO             |            |                |              |           |  |  |  |
|  | TWG - Laboratory | Equipment | (OIC) HEAD, ACCOUNTING OFFICE WA |            |                |              |           |  |  |  |
| Requested by: Noted by:  |                  |           |                                  |            |                | Approved by: |           |  |  |  |
| Signature:   |                  |           |                                  |            |                | lely         | ne        |  |  |  |
| Printed Name: SANTIAGO T. PEÑA JR. SANTIA                                |                  |           | SANTIA                           | PEÑA JR.   | EDGAR          | DO E. TULIN  |           |  |  |  |
| Designation: USER  |                  |           |                                  | INIT HEAD, | PROJECT LEADER | PRESI        | DENT, VSU |  |  |  |