



BID BULLETIN No. 01

Date: 17 November 2021

Project Title: *Supply and Delivery of Laboratory Equipment for Rootcrops Genomics (GOODS-22-01)*

Location: VSU Main, Visca, Baybay City, Leyte

Bidders are hereby informed/reminded of the following addendums/amendments/clarifications:

I. LIST OF REQUIREMENTS

(1st Envelope) TECHNICAL COMPONENT ENVELOPE	
<i>Legal Documents</i>	
1	PhilGEPS Certificate of Registration (Platinum)
	or
	a. Registration Certificate (SEC, DTI or CDA)
	b. Mayor's/Business Permit
	c. Tax Clearance
<i>Technical Documents</i>	
2	Statement of All On-Going Government & Private Contracts
3	Statement of Bidder's Single Largest Completed Contract (at least 50% of the ABC or Php 8,538,250.00)
	Or
	Statement of at least two (2) similar completed contracts w/ total amount of at least Php 8,538,250.00 and the largest of which should be at least Php 4,269,125.00 .
4	Bid Security
5	Technical Specifications
6	SCHEDULE of Requirements/Production and delivery schedule
7	Manpower Requirements
8	After Sales service/parts from acceptance of delivered goods (at least 1 year for equipment and 30 days for supplies)
9	Original Duly Signed Omnibus Sworn Statement
<i>Financial Documents</i>	
10	The Supplier's Audited Financial Statements
11	Net Financial Contracting Capacity (at least Php 17,076,500.00)
	Or
	Committed Line of Credit (at least Php 1,707,650.00)
(2nd Envelope) FINANCIAL COMPONENT ENVELOPE	
12	Original of duly signed and accomplished Financial Bid Form
13	Original of duly signed and accomplished Price Schedule(s)



Please take note:

In the **Technical Specifications**, bidders must state either “Comply” or “Not Comply” **against each of the individual parameters of the specifications** per item stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in the **Bidders Bid** and cross-referenced to that evidence. Evidence shall be in the form of **manufacturer’s un-amended sales literature (Data Sheets), unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data, and Brand and Model** as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of **ITB** Clause 3.1(a)(ii) and/or **GCC** Clause 2.1 (a)(ii).

II. Preparation of Electronic Bid (for bidders who prefer electronic bid submission)

1. Convert all documents into Portable Document Format (PDF) and should be printable.
2. Properly label all documents for prompt identification. Filename of documents, whichever are applicable to the bidder, should be as follows:

Document	Filename (in PDF form)
1. PhilGEPS Certificate of Registration (Platinum)	PhilGEPS
2. Registration Certificate (SEC/DTI)	Registration Certificate
3. Mayor’s/Business Permit	Mayor’s-Business Permit
4. Tax Clearance	Tax Clearance
5. Statement of On-Going Government & Private Contracts	Statement of On-Going Contracts
6. Statement of Bidder's Single Largest Completed Contract	SLCC
7. Statement of at least two (2) similar completed contracts	Statement of Completed Contracts
8. Bid Security	Bid Security
9. Technical Specifications	Technical Specifications
10. SCHEDULE of Requirements/Production and delivery schedule	Schedule of Requirements
11. Manpower Requirements	Manpower Requirements
12. After Sales service/parts	After Sales
13. Omnibus Sworn Statement	Omnibus Sworn Statement
14. Audited Financial Statements	Audited Financial Statements
15. Net Financial Contracting Capacity	NFCC
16. Committed Line of Credit	CLC
17. Bid Form	Bid Form
18. Price Schedule	Price Schedule

3. Create two (2) folders that are password-protected. The first folder should contain all requirements under Technical Component checklist as presented under Section VIII.

The second folder should contain all requirements under Financial Component checklist.



4. Compress the two (2) folders and name as follows: a) first folder: **Technical Documents**, b) second folder: **Financial Documents**.
5. Email the 2 compressed folders to Ms. Jessamine C. Ecleo at jessamine.ecleo@vsu.edu.ph before the deadline.

III. Changes in the Bidding Documents

Original											
<p>Section I. Invitation to Bid</p> <p>1. The Visayas State University through the GF 2022 intends to apply the sum of Seventeen Thousand Seventy-Six Thousand Five Hundred Pesos (PhP 17,076,500.00) being the ABC to payments under the contract for Supply and Delivery of Laboratory Equipment for Rootcrops Genomics (GOODS-22-01).</p> <p>6. A complete set of Bidding Documents may be acquired by interested Bidders on <i>25 October – 25 November 2021 until 8:59 AM</i> from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Twenty Five Thousand Pesos (PhP 25,000.00). The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.</p>	<p><i>(Amendment)</i></p> <p>The Visayas State University through the GF 2022 intends to apply the sum of Seventeen Million Seventy-Six Thousand Five Hundred Pesos (PhP 17,076,500.00) being the ABC to payments under the contract for Supply and Delivery of Laboratory Equipment for Rootcrops Genomics (GOODS-22-01).</p> <p><i>(Amendment)</i></p> <p>A complete set of Bidding Documents may be acquired by interested Bidders on <i>28 October – 17 November 2021 until 8:30 AM</i> from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Total Amount of ABC of All Equipment to be Quoted by the Bidder</th> <th style="text-align: center;">Bid Docs Fee</th> </tr> </thead> <tbody> <tr> <td>1,000,000.00 and below</td> <td style="text-align: center;">1,000.00</td> </tr> <tr> <td>1,000,001.00 to 5,000,000.00</td> <td style="text-align: center;">5,000.00</td> </tr> <tr> <td>5,000,001.00 to 10,000,000.00</td> <td style="text-align: center;">10,000.00</td> </tr> <tr> <td>Above 10,000,000.00</td> <td style="text-align: center;">25,000.00</td> </tr> </tbody> </table> <p>The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.</p> <p>The Bidders may deposit the payment for the bidding documents to the Visayas State University Landbank Account with the following details:</p> <p>Account Name: Visayas State University Fund 164 Account Number: <u>3572-1000-13</u></p>	Total Amount of ABC of All Equipment to be Quoted by the Bidder	Bid Docs Fee	1,000,000.00 and below	1,000.00	1,000,001.00 to 5,000,000.00	5,000.00	5,000,001.00 to 10,000,000.00	10,000.00	Above 10,000,000.00	25,000.00
Total Amount of ABC of All Equipment to be Quoted by the Bidder	Bid Docs Fee										
1,000,000.00 and below	1,000.00										
1,000,001.00 to 5,000,000.00	5,000.00										
5,000,001.00 to 10,000,000.00	10,000.00										
Above 10,000,000.00	25,000.00										



<p>11. This procurement project is part of the early procurement activities (EPA) of VSU for 2022 projects. Procurement activities from advertisement until recommendation of award to the HoPE shall be conducted in 2021 but issuance of award to the winning bidder(s) shall be done in 2022 upon the release of 2022 General Appropriations Act from DBM.</p>	<p>Then send the deposit slip to jessamine.ecleo@vsu.edu.ph</p> <p><i>(Emphasis)</i></p>
<p>Section I. Invitation to Bid</p> <p>15. Sealing and Marking of Bids</p>	<p><i>(Additional Instructions)</i></p> <p>Bidders are requested to submit three (3) copies of its bid – 1 Original, Copy 1, and Copy 2.</p> <p>For filing purposes, the bidders are urged to use Red envelopes for its Technical and Financial Component envelopes, including the Mother (outer) Envelope.</p>

IV. Revised List of Goods and Technical Specifications

- Some Specifications were added (in red font) and/or deleted (in blue font)
- Some Quantities and Unit Prices (ABC) were changed

Item No.	Description	Unit	Qty	ABC/Unit (Pesos)	Total ABC (Pesos)
1	Pipette Sets	sets	5	100,000.00	500,000.00
	Description: Fully Autoclavable Pipetter Set with Carousel Stand				
	Specs:				
	Volume Size includes 0.2-2ul, 1-10ul, 2-20ul, 10-100ul, 20-200ul, 100-1000ul Package of Fully autoclavable pipettors (121°C for 20 minutes), Easily recognizable push buttons Colored code Mushroom-shaped push button or ergonomic design (mushroom button)				
	Triple-speed turbo dial volume with lever lock-delete				
	With normal and triple speed dials; easy adjustment and volume				



2	Mini CENTRIFUGE	units	2	40,000.00	80,000.00
	☐Description:				
	◀Quiet & Compact				
	◀Spins multiple micro sample tube sizes				
	◀Ideal for Quick Spin-Downs				
	◀Fast Starting & Stopping				
	☐Specifications:				
	◀RPM: at least 6,000 rpm				
	◀RCF: at least 2,000 xg				
	◀Microtube Rotor: 2 x 8-strips or 16 x 0.2mL tubes or 8 x 1.5/2.0 ml tubes rotor				
	◀Dimensions (WxDxH): +4°C to 50°C- delete				
	◀Electrical: 100V to 230VAC, 50/60 HZ, 0.1 A				
	◀Warranty: 1 year				
3	Microcentrifuge with Refrigeration	units	2	300,000.00	600,000.00
	Accel/Decel Profiles: acceleration up to 21,000 x g in 12-17 seconds				
	Noise Level: <60dbA				
	Run Time:1 to 99min (1min increments); HOLD				
	Temperature Range:-9° to +40°C				
	Max. RCF: 21,100 x g				
	Refrigerated: Yes				
	Type: Benchtop Centrifuge				
	Capacity:24 x 1.5/2mL				
	Max. Speed: 14,000 to 14,999 rpm				
	CSA certified, CE IVD compliant, Certified Biosafety; IEC 61010-1, IEC 61010-2, IEC 61010-020				
	with extended-delete at least 1 years warranty				
4	Laminar Flow Hood	units	2	200,000.00	400,000.00
	Specs:				
	Airflow Design: Vertical, positive pressure laminar airflow				
	Depth: 813-delete at least 750 mm				
	Hood Design: Benchtop				
	Filter Type: HEPA				
	Frame Material: 304 Stainless Steel				
	Max Opening: 959-delete 750 mm H				
	Side Panels: Static-Dissipative PVC				
	Sash Design: Manual/Tilt-Up				
	Sash Opening: at least 406 mm				
	Work Area Dimensions: 1,826 mm W x 810 mm D x 1,067 mm H-delete, Over all Dimensions: at least 1800mm x 750mm x 2040mm)				



	Electrical Specifications: 220 V , 6 A, 720 W, 50/60 Hz				
	Meets or exceeds ISO 5 / Class 100 for cGMP, IEST, ASTM and ISO 14644-1 standards				
	Background noise (registers under 50 dBA at 12" (305 mm) from filter face)				
	Inclusions:				
	Hood frame				
	fan filter unit				
	LED lighting				
	Delivery and installation				
	with at least 1 year warranty				
5	Autoclave High Steam Sterilizer, at least 25 liters capacity	units	1	400,000.00	400,000.00
	☑(High Pressure Steam Sterilizer) , Automatic, Vertical Autoclave				
	☑Portable, Top-loading Autoclave				
	☑Space-saving design with lid opening upward.				
	☑Dual-sensing lid interlock prevents lid opening when chamber is pressurized or when temperature exceeds 97°C.				
	☑One-touch lever to easily open and close chamber lid				
	☑Door-closure sensor provides a prompt and the cycle will not start unless the door is closed properly.				
	☑In-process display shows status and progress of sterilization cycle				
	☑Agar sterilization mode for sterilizing agar and then automatically maintaining it at liquid temperature				
	☑Sterilization timer is activated only when load temperature reaches set temperature				
	☑Temperature Range: 105°C to 135°C				
	☑Agar warming range: After sterilization, agar can be maintained from 45°C to 60°C (programmable) for up to 24 hours to prevent coagulation.				
	☑Sterilization Timer: 1 to 300 minutes				
	☑Cooling Fan: Switch to turn fan on or off				
	☑Safety Features: Circuit breaker with GFCI, low-water power cut-off, over-temp power cutoff, over-pressure power cut-off, safety valve, sensor for improper lid closing				
	☑Power Requirements: 220V, 50/60 Hz, single phase				
	☑Power Consumption: 3.9 Kw-delete				
	with installation				
	with at least 1 year warranty				



6	Basic Bench pH meters with replaceable electrode and buffer	unit	2	60,000.00	120,000.00
	☑Accuracy temperature: $\pm 0.3^{\circ}\text{C}$				
	☑Accuracy pH: ± 0.1				
	☑Electrical requirements: AC/DC 9 V adapter (220 VAC, 60 Hz)				
	☑Resolution (mV): 0.1 mV (± 199.9 mV); 1 mV beyond ± 200 mV				
	☑Temp probe calibration: offset in 0.1°C increments; offset range $\pm 5^{\circ}\text{C}$				
	☑Range pH: 0 to 14				
	☑Accuracy mV: ± 0.2 mV (± 199.9 mV), ± 2 mV beyond ± 200 mV				
	☑Calibration points: 1 to 5 points with automatic buffer recognition (ABR)				
	☑Include 13-620-AE6-delete 3-in-1 single junction gel or glass pH/ATC electrode				
	☑Memory: at least 100 datasets				
	☑Resolution temperature: 0.1°C				
	☑Temperature compensation: automatic or manual (0 to 100°C)				
	☑Temperature range metric: 0.0 to 100.0°C				
	☑Range mV: ± 1999 mV				
	☑Resolution pH: 0.01				
	☑Power source: 220 - 240 50/60 Hz				
	☑Warranty: 1-year meter warranty; 6-month electrode warranty				
7	Multi-position Hot Plate Stirrer	pc	1	95,000.00	95,000.00
	☑at least 3 independent heating/stirring positions with individual stir controls				
	☑ at least 600 x 270 mm footprint				
	☑robust aluminum / silicon alloy/ stainless steel with ceramic coating top plates				
	☑Stirring speed: at least 1500rpm				
	☑Volume: at least 15 L				
	☑at least 3 x 25 mm PTFE coated stir bars with at least 1 year warranty				
8	Analytical Balance, at least 220g capacity	unit	2	153,000.00	306,000.00
	☑4 decimal places				
	☑Automatic Internal Calibration, LCD backlit display				
	☑Capacity: at least 220g				
	☑Readability: 0.1 mg				
	☑Repeatability (std dev): 0.1 mg				
	☑Linearity (+/-): 0.2 mg				
	☑Pan size (mm/inch): 90 Ø/3.5Ø				
	☑Response time: at least 3 sec				



	☑Calibration: Perfect Self Auto Calibration-optional (temperature / time /power on), onsite external calibration, suppliers should provide calibration certificate and sticker valid for 1 year				
	☑Display: Bright LCD Display with LED backlight				
	☑Unit of measure: gram, Milligram				
	☑Tare Range: Full				
	☑Operating Temperature: 10°C to 40°C				
	☑Power Supply: AC Adapter 100V- 240V +/- 20% 50-60Hz				
	with at least 1 year warranty				
9	Microscope with Infinity Corrected Optics and Eyepiece Camera or trinocular microscope with camera	unit	1	150,000.00	150,000.00
	☑MICROSCOPE				
	◀Optical System: UIS2-delete (Universal infinity-corrected) optical system				
	◀6V/30W halogen bulb				
	◀100-120V/220-240~0.85/0.45A 50/60Hz				
	◀Focusing: Stage height movement by roller guide				
	—Fine adjustment scale:2.5microns per gradation				
	—Fine adjustment stroke: 0.3microns per turn				
	—Total stoke: 20microns				
	◀Revolving Nosepiece: Fixed quadruple nosepiece with inward tilt				
	◀Objectives: Plan C Achromat Objectives				
	—4xNA: 0.10 W.D.: 27.8 mm				
	—10xNA: 0.25 W.D.: 8.0 mm				
	—40xNA:0.65 W.D.: 0.6 mm				
	—100xOil NA: 1.25 W.D.: 0.13 mm				
	◀Binocular Observation Tube: Field Number: 20				
	◀Tube inclination: 30 degree				
	◀Interpupillary distance adjustment range: 48mm-75mm				
	◀Stage: Size: 188mm(W) x 134mm(D)				
	◀Movement range: 76mm X-direction x 50mm Y-direction				
	◀Stage: Size: 188mm(W) x 134mm(D)				
	◀Movement range: 76mm X-direction x 50mm Y-direction				
	◀Specimen holder: Double slide holder				
	◀Rubber grip: Equipped as standard				
	◀Condenser: Type: Abbe condenser, with built-in daylight filter				



	◀NA: 1.25 with oil immersion				
	◀Aperture in diaphragm: Built-in				
	☑EYEPIECE CAMERA				
	◀Optics				
	—Built-in magnification: 25x				
	—Lens type: Glass with Anti-Reflection coating				
	◀Sensor				
	—Sensor Type: CMOS				
	—Resolution: 5 Megapixel (2592x1944)				
	—Maximum frame rate: 30 fps				
	◀Dimensions				
	—Mounting type: Inside ocular/tube & c-mount				
	—Ocular inner diameter: 23, 30, 30,5mm				
	—Dimensions: 80 mm (H) x 32 mm (D)				
	◀Compatibility				
	—Interface: USB 2.0				
	—Operating system: Windows XP, Vista, 7,8, & 10, MacOS 10.4 and up				
	—Inclusion of software				
	with at least 1 year warranty				
10	DeepFreezing Freezer/Ultra-Low-Temperature Freezer	unit	1	1,150,000.00	1,150,000.00
	with at least 1 unit AVR/UPS compatible with the unit				
	Cooling: Direct cooling				
	Defrost mode Manually				
	Cooling agent FCKW/HFCKW-free				
	Noise level dB(A)50				
	Cooling performance (°C) -86				
	Recovery time min ≤ 10				
	Control Microprocessor				
	Display 7" Touch screen LCD				
	Mains connection (V/Hz) 220/60				
	Compressor capacity (W) 1000				
	Electric load (A) at least 5.5				
	Volume (Liter) at least 300 - 400-delete				
	Useful dimensions (W x D x H) (mm) at least 440x696x1266-delete				
	General dimensions (W x D x H) (mm) at least 785x1041x1947, should fit 2000mm x 1400mm (WxH entrance")				
	Container load (20'/40') 10/20				
	With at least 1 year warranty				
	Alarm System:				
	High/Low temperature alarm Overheat				
	cooling compressor Power breakdown				
	High/Low voltage				



	Sensor failure Accu weak High ambient temperature Door alarm				
	Stands Wall openings, Trays and Inner doors per shelf/compartment, USB interface, RS 485 interface				
	with on-site installation				
11	Laboratory Refrigerator with 10.6 cubic foot/at least 300 L capacity, Upright	unit	2	70,000.00	140,000.00
	☑Temperature range: +2°C to +8°C				
	☑Inner cabinet: white epoxy painted				
	☑Inner shelves: epoxy plastic coated steel rod				
	☑CFC Free Eco-friendly refrigerant R 134a				
	☑CFC Free, environment friendly Cyclopentene foaming PUF insulation				
	☑No frost, fan-assisted cooling circulation system				
	☑Ultra-fast pull down, auto defrost with self-evaporating drip tray				
	☑Rear-to-front hot air anti-condensation				
	☑Digital temperature controller				
	☑Double glazed glass doors				
	☑Full length illumination				
	☑Fitted with castors, front two with brakes				
	☑Low noise, green technology and energy saving				
	☑Self-closing hinge doors				
	☑Lock as standard				
	☑Input 220/240V, 50/60 Hz with power cord & plug				
	☑Automatic voltage stabilizer with time delay restart				
	☑gross volume: ≥ 300 L				
12	Liquid Nitrogen Transfer Vessel	pc	3	78,500.00	235,500.00
	type: LN2 Transfer Vessel, capacity: at least 5L, Lightweight aluminum dewars assure low-static evaporation rates				
13	Multipipette (0.5-10uL)	unit	1	90,000.00	90,000.00
	Description: Manual multichannel pipette				
	Specs:				
	Compatible with standard pipette tips				
	Increments 0.02µL				
	Number of Channels 12				
	Volume (Metric) 0.5 to 10 µL				
	Autoclavable: yes				
14	Multipipette (120-1200uL)	unit	1	90,000.00	90,000.00
	Description: Manual multichannel pipette				
	Specs:				
	Compatible with standard pipette tips				



	Increments 10µL				
	Number of Channels 8				
	Volume (Metric) 10-100uL 120 to 1200 µL - delete,				
	Autoclavable: yes				
15	Heating Block with Shaker	unit	1	150,000.00	150,000.00
	movement (orbital);				
	speed range (200-1500 rpm);				
	temp range (5-100 degrees C);				
	capacity (24 x 1.5mL)				
	Power: 220V, 60Hz				
16	Real-Time qPCR	set	1	3,000,000.00	3,000,000.00
	Specs:				
	<u>Machine</u>				
	Fixed 96-well sample block (reduced-mass)				
	Retractable lid				
	Sample size: 96-wells				
	Sample volume: 1 µL – 50 µL or equivalent or higher specification				
	Heating and cooling method: Peltier				
	Lid heating: 30-110°C				
	Temperature range: 4-100°C				
	Maximum ramp rate: 5 °C/sec				
	Average ramp rate: 3.3 °C/sec				
	Thermal accuracy: ±0.2°C				
	Thermal uniformity: ±0.3 well-to-well after 10 sec of arrival at target				
	Operational gradient temperature: 30 °C – 100 °C				
	Gradient programmable span: 1 °C – 24 °C				
	Touch system; with adjustable screen from 15°-22°				
	Capable of stand-alone operation				
	Can connect to cloud platform for remote monitoring, experiment set-up, and Cq analysis				
	Automated lid that opens, closes and can apply sealing force to reaction wells				
	<u>Optical Detection:</u>				
	Multiplex analysis: up to 5 targets per well, with 5 channels plus one channel dedicated for FRET analysis				
	Wavelength Range: 450 nm – 730 nm				
	Scan Time				
	o All channels: 12 sec				
	o Single-channel fast scan: 3 sec				
	Dynamic range: 10 orders of magnitude				



	Sensitivity: Detects 1 copy of target sequence in human genomic DNA				
	Software:				
	Operating System: Windows 10 compatible				
	Data analysis modes: gene expression analysis by relative quantity (ΔCq) or normalized expression ($\Delta\Delta Cq$); multiple-file gene expression analysis for comparison of an unlimited number of Cq values; allelic discrimination; end point analysis				
	Data analysis options: include bar chart, box and whisker plot, dot plot, clustergram statistics include t-tests and analysis of variance (ANOVA)				
	Capable of generating customized temperature protocol based on enzyme type, PCR product length, and primer annealing temperature				
	With reference gene selection tool				
	Image export: Export images at a resolution up to 600 dpi;				
	Inclusions:				
	One (1) unit of 3 kVA AVR				
	One (1) unit of 3 kVA UPS				
	One (1) unit of laptop				
	One (1) unit of printer				
	with at least 1 year warranty				
17	Thermal Cycler	unit	2	600,000.00	1,200,000.00
	capacity (96 x 0.2 mL tubes or 1 x 96-well plate);				
	temp range (4-100C)				
	gradient range (30-100C);				
	temp differential range (1-25C);				
	Ramp rate: 4C/sec with average of 2.5C/sec Temp. accuracy: $\pm 0.5C$ of programmed target Temp. uniformity: $\pm 0.5C$ well-to-well within 30 sec. of arrival at target temp Lid: applies heat to the reaction vessel lids preventing condensation and applies force to seal preventing evaporation Instant incubation: Yes				
	Complete with initial reagents and consumables -tube support ring -pcr tubes -pcr mastermix/supermix -plant extraction kit -gel and pcr clean-up kit				
	with infinite hold time				
	with compatible AVR/UPS				



	with at least 1 year warranty				
18	PCR Plate Thermal Sealer	unit	1	300,000.00	300,000.00
	Specs:				
	sealing Time: 0.5 to 10 s (increments of 0.1 sec)				
	Accuracy: ± 1.0 °C				
	Temperature Range: 100°C to 190°C				
	Temperature Uniformity: ± 1.0 °C				
	Voltage: 100–240 VAC, 50–60 Hz				
	Inclusions:				
	Delivery and installation				
	At least 1 years warranty				
19	Horizontal Electrophoresis System	unit	2	300,000.00	600,000.00
	Specs:				
	<u>Machine:</u>				
	Open system and compatible to any existing precast gel				
	15 x 10 cm UV-transparent acrylic plastic gel tray with fluorescent ruler				
	With 15- and 20- well combs				
	Gel tank: molded clear plastic; has lid with cables				
	Gel buffer: 650 mL – 900 mL				
	Banana plugs: gold-plated brass, 4.4 cm length				
	Electrodes: platinum, 0.25 mm in diameter				
	Electrical leads: nickel silver				
	Gel caster: polycarbonate, 0.64 cm silicon foam; with leveling bubble				
	<u>Power Supply:</u>				
	3-digit display				
	Output specifications: 10 V – 300 V; 4mA – 400 mA; 75 W (maximum)				
	4 pair recessed banana jacks in parallel				
	Has pause mode for editing parameters, or stopping and resuming the run				
	Power failure detection in timed mode; when power returns run will complete				
	Automatic detection of rapid changes in resistance and no load conditions				
	Compact and stackable				
	Flip-down legs to change viewing angle				
	Inclusions:				
	Power supply				
	One (1) unit of 1 kVA AVR				
	agarose gel (molecular grade)				
	50x TAE buffer				
	100 bp DNA ladder with glycerol, bromophenol blue and xylene cyanol				



	2-in-1 non-toxic visualization dye (loading dye and fluorescent dye)				
	with at least 1 year warranty				
20	Vertical Electrophoresis System	unit	1	300,000.00	300,000.00
	Specs:				
	Machine:				
	Tank: Polycarbonate				
	Upper and lower electrode: Polycarbonate				
	Lid: Polycarbonate				
	Sample Loading guides: Polycarbonate				
	Number of gels: 1-2				
	Gel size: 13.3 x 8.7 cm (WxL)				
	Gel tank: molded clear plastic; has lid with cables				
	Gel buffer: 1000 mL				
	Gel caster: polycarbonate, 0.64 cm silicon foam; with leveling bubble-delete				
	Typical running conditions: 200V constant				
	Power Supply:				
	Programmable output (5-250 V, 0.01-3.0 A, 1-300W)				
	Display: 2-line, 16 character LCD programming				
	Constant voltage, constant power or constant power output				
	Timer: 1 min-99hr, 59min				
	With overload/short-circuit detection; overvoltage protection;				
	4 pair recessed banana jacks in parallel				
	Input power (9-120 or 198-246 VAC, 50/60 Hz, auto switching)				
	Inclusions:				
	Power supply				
	Sample loading guides				
	Combs (18 and 26)				
	One (1) unit of 1 kVA AVR				
	agarose gel (molecular grade)				
	50x TAE buffer				
	100 bp DNA ladder with glycerol, bromophenol blue and xylene cyanol				
	2-in-1 non-toxic visualization dye (loading dye and fluorescent dye)				
	with at least 1 year warranty				
21	Gel Documentation System	unit	1	1,750,000.00	1,750,000.00
	Specs:				
	SUPPORTING APPLICATIONS				



	Fluorescence: Yes				
	Colorimetry: Yes				
	Gel Documentation: Yes				
	AUTOMATION CAPABILITIES				
	automatically recognizes application-specific tray				
	adjusts imaging parameters and software options accordingly				
	auto-focus (precalibrated)				
	HARDWARE SPECIFICATIONS				
	Touch-screen Functionality: Multi-touch capable				
	Display resolution: 1,024 x 768 pixels				
	Maximum Image Area (W x H): at least 21 x 14 cm				
	Pixel Size: 2.4 x 2.4 μ m				
	Bit Depth (gray levels): 65,536				
	Excitation Source: Trans-UVB (Standard)				
	Epi-white (Standard)				
	Emission Filter 535-645 nm (standard)				
	Data Output: 16-bit or 8-bit: SCN, TIFF, JPEG image file				
	Operating Voltage: 100-240 VAC, 50-60 Hz				
	Operating Temperature: 10-28° C				
	Operating Humidity: 20-80% relative humidity (non-condensing)				
	Inclusions:				
	Imaging System				
	Compatible Software				
	UV/Stain-free Tray for Imaging System				
	Computer				
	Printer				
	Automatic Voltage Regulator (2kVa)				
	Uninterruptible Power Supply (2kVa)				
	At least 1 year warranty				
	Delivery and after sales services				
22	Benchtop Incubator Shaker	unit	1	300,000.00	300,000.00
	Specs :				
	CO2 control: (\pm 0.1 %)				
	CO2 range (0.2–20 %)				
	CO2 stability at 5% CO2 (\pm 0.2 %)				
	CO2 uniformity (\pm 0.1 %)				
	High temperature disinfection (4 hours at 120°C)				
	In-line gas regulator (standard)				
	Number of shelves -2				
	Number of shelving racks (2)				
	Movement type (orbital)				



	Orbit (2.5 cm (1in))				
	Speed range (25 – 400 rpm)				
	Temperature control (± 0.1 °C)				
	Temperature stability at 37°C (± 0.1 °C)				
	Capacity (170 L)				
	Display (Touchscreen)				
	Timer (Continuous)				
	Temperature range (Ambient +4°C to 50°C)				
	Audible and visual alarms (yes)				
	Temperature uniformity (± 0.25 °C at 37°C)				
	Balanced drive mechanism (Triple-eccentric with permanently lubricated ball bearings)				
	Motor type (Solid state, DC brushless motor)				
	Power: 220V, 60Hz				
	Inclusions:				
	Automatic Voltage regulator				
	Two (1) year warranty				
	Delivery and installation				
	Training and after sales services				
23	Water Bath with Hood	unit	2	80,000.00	160,000.00
	with hood; capacity (at least 2L);				
	temp uniformity (± 0.2 C);				
	temp stability (± 0.1 C at 70C);				
	max temp (100C);				
	timer (yes)				
	with at least 1 year warranty				
24	Convection Oven	unit	1	100,000.00	100,000.00
	convection type;				
	temp range (ambient, 10-300C);				
	temp stability (± 0.1 C at 100C);				
	capacity (2cu.ft/-delete 50000ml-60000mL);				
	programmable temperature				
	Power: 220V, 60Hz				
	with at least 1 year warranty				
25	Centrifuge	unit	1	1,500,000.00	1,500,000.00
	speed range (200rpm-18000rpm);				
	max rcf (23,542 x g);				
	refrigeration range (-20- -40C);=delete				
	noise level (<60 dB);				
	Frequency (50/60 Hz)				
	Rotor (Swinging bucket rotor- 4x1000ml) with Buckets, ClickSeal				
	Type (Benchtop Centrifuge)				
	Voltage (220/240 V)				



	Capacity (148 x 5/7 mL tubes, 84 x 9/10 mL Tubes, 56 x 15 mL Conical Tubes, 28 x 50 mL Conical Tubes, at least 4 Microplates; 4 x 1000 mL bottles)				
	Refrigerated (Yes, CFC-Free)				
	Temperature Range (-10°C to +40°C, ±2°C)				
	Display (Full Color Touch Screen Interface)				
	Timer (Option to count up or down)				
	Certifications/Compliance – (EN/UL/IEC 61010-1EN/UL/IEC 61010-2EN/UL/IEC 61326-1EN/UL/IEC 61326-2FCC part 15)				
	Drive System (Direct, Brushless Induction Low Profile)				
	Run Time (Up to 99 hr. 59 min. 59 sec.)				
	Standards (ISO 14971, ISO 13485, ISO 9001)				
	Inclusions:				
	Rotor Buckets and accessories				
	Tube and microplate adapters				
	User Manual				
	At least 1 years warranty				
	Installation and after sales services				
26	Safety Storage Cabinet	unit	2	60,000.00	120,000.00
	dimensions (at least 915mmx459mmx459mm);				
	lockable;				
	material (stainless steel)				
27	Fume hood	unit	2	300,000.00	600,000.00
	Laboratory fumehood;				
	at least 1500W*850D*2350L (mm);				
	material (steel);				
	modular, stainless steel duct material for hood exhaust				
	worktop material (epoxy resin, phenolic resin, ceramic, stainless steel);				
	floor mounted structure				
	with Installation and exhaust duct				
	Manual type operation				
	Power: 220V, 60Hz				
28	Water Purification System	unit	1	1,500,000.00	1,500,000.00
	Specs:				
	Type: Ultra-pure water purification system)				
	Feedwater source: potable tap water				
	Certifications/compliance (UL, Cul, ISO 9001 v.2000, ISO 14001) or equivalent				
	Contaminant rejection (greater than 99%)				
	End Filter pore size 0.45 µm × 0.22 µm				
	Product water types: Type 1 and Type 2				
	Feed Water Conductivity at 25°C < 2000				



	µS/cm				
	Feed Water TOC < 2000 ppb				
	Feed Water Pressure 1 - 6 bar				
	Feed Water Temperature 5 - 35°C				
	Feed Water Chlorine* < 3 ppm				
	Feed Water Fouling Index** < 12				
	Feed water pH 4 to 10 pH units				
	Feed Water Connection 1/2 in Gaz M				
	System Specs:				
	Electric power supply voltage 100 - 230 V +/- 10%				
	Electric power supply frequency 50 - 60 Hz				
	Main unit data connection Ethernet (RJ45)				
	Water Production and Delivery:				
	Type 1 Water Delivery				
	Manual dispense flow rate (between 50 and 2000 mL/min)				
	Automatic dispense				
	Volumetric dispense accuracy (3% for volumes between 250 mL and 60 L)				
	Volumetric dispense dispersion (CV < 3% for volumes between 250 mL and 60 L)				
	Water Quality Type 1 Conductivity: 0.055 µS/cm @ 25 °C or Resistivity 18.2 MΩ × cm @25 °C TOC Content: <5 ppb Bacteria: <0.01 CFU Particle content: No Particle >0.22µm Endotoxin <0.01 EU/mL RNase: <1pg/mL DNase: <5pg/mL				
	Type 3 Water Production and Delivery				
	Production Flow Rate (at least 8 L/hour) D				
	Delivery Flow rate				
	From tap: up to 2.5 L/min				
	From optional pump: up to 15 L/min at 1 bar				
	Water Quality: Type 2 Conductivity: 0.2–0.07 µS/cm @ 25°C or Resistivity of 5 –15 MΩ × cm @ 25 °C Particle and microorganism retention: >99% Typical TOC reduction: 95%				
	with storage tank of at least 30 liters with dispenser				
29	Dishwasher	unit	1	40,000.00	40,000.00
	Description: Laboratory Dishwasher for glassware				
	Specs:				



	Labware Type: Glassware				
	Door Style: Solid Door				
	Configuration: ADA Undercounter				
	Integral Heater: Yes				
	Electrical Specifications: 115 V, 16 A, 1 Ph, 60 Hz				
	Placement: Free standing				
	Water temperature: up to 93° C				
	size (60m stainless steel; placement (freestanding);				
	with built-in display (LED);				
	water consumption (10L);				
	service capacity (more than 12);				
	energetic calification (A);				
	installation type (integrated)				
	Inclusions:				
	Installation				
30	Mini PCR plate spinner	unit	2	50,000.00	100,000.00
	Specs:				
	dual position vertical rotor				
	compatible with 96-well, 384-well, skirted and non-skirted plates				
	acceleration: 2500 rpm				
	capacity: 2 PCR plates				
	220V				
	Inclusions:				
	Adapter for PCR plate spinner				
	At least 1 year warranty				
	Delivery and after sales services				
31	Cryogenic Storage System	unit	1	1,000,000.00	1,000,000.00
	Specs:				
	Vessel Application (Cryogenic Storage)				
	Type (manual fil LN2 Dewar)				
	Low Liquid Nitrogen Alarm: Yes				
	2 mL Vial Capacity: -6000				
	Vial Capacity Range: (5,001 to 10,000)				
	Material: (Aluminum)				
	Design: (Free Standing)				
	Lockable: Yes				
	Rack System: Yes				
	Liquid Nitrogen Capacity: at least 175 L				
	Static Hold Time: 185 days				
	Evaporation Rate: 1 L/day				
	Neck Diameter: 216 mm dia.				
	with nitrogen level monitor;				
	insulation (vacuum);				
	monitoring options (ultrasonic level);				



	<i>Inclusions:</i>				
	Compatible storage racks				
	Vial box (1.5ml and 2ml)				
	Cryo vials (1.2mL)				
	Wheeled cart for vessel				
	At least 1 years product warranty				
	Delivery and after sales services				
				TOTAL:	17,076,500.00

(Sgd.)
DILBERTO O. FERRAREN
BAC Chairman