

SUPPLEMENTAL/BID BULLETIN

Republic of the Philippines
UNIVERSITY OF THE PHILIPPINES
Governor Pack Road, Baguio City
(074) 446-9973/ 442-3888/ 442-3484
Website: www.upb.edu.ph; E-mail: bac.upb@up.edu.ph

ADDENDUM 2019-05

SUPPLY, DELIVERY, AND INSTALLATION OF VARIOUS SCIENTIFIC EQUIPMENT FOR THE DOST PCHRD TUKLAS LUNAS ESKAPE PROJECT

17 June 2019

This Addendum No. 2019-05 is issued to modify specifications in the attached Bid Documents and Bill of Quantities for the Project. This shall form an integral part of the Bid Documents.

QTY	ITEM	ORIGINAL	ADDENDUM
		DELIVERY PERIOD: 30 DAYS	DELIVERY PERIOD: 30-90 DAYS
1 LOT	ULTRA- LOW FREEZE R WITH CO₂ BACK UP (- 86C)	SPECIFICATIONS: Type: UPRIGHT Capacity: at least 422 L Electrical: 208-230V/ 60Hz Max Shelf Weight: 57 kg Energy Consumption (kW-hr/day) Standard Mode: 9.4 Peak Variation from -80°C setpoint (°C): +8.5 / -2.4 Door Opening Recovery (minutes): not more than 13 minutes Must be able to hold up to 300 2-inch boxes. Display: Touch screen LCD Insulation: Water-blown foam (should be snap compliant) Door style: 1 outer and 4 inner Must have Low peak variation to help ensure sample protection	SPECIFICATIONS: Type: UPRIGHT Capacity: at least 422 L Electrical: 208-230V/ 60Hz Max Shelf Weight: 57 kg Energy Consumption (kW-hr/day) Standard Mode: 9.4 Peak Variation from -80°C setpoint (°C): +8.5 / -2.4 Door Opening Recovery (minutes): not more than 13 minutes Must be able to hold up to 300 2-inch boxes. Display: Touch screen LCD Insulation: Water-blown foam (should be snap compliant) Door style: 1 outer and 4 inner Must have Low peak variation to help ensure sample protection

	<p>throughout entire cabinet At least 0.93°C steady-state temperature variation over time Warm-up time from -80°C to -50°C in 300 minutes Noise Level (dBA): maximum of 52 dBA Must have Stainless Steel Freezer Interior and locking mechanism Alarm Delay Module: Should eliminate nuisance alarms due to intermittent or transitory conditions. Preferably with Access Key Option Card Access control that includes five key cards. Must support ISO15693 and ISO14443 protocols. Must have water-cooled condenser option to reduces heat output by almost 60% Should be/have:</p> <ul style="list-style-type: none"> - Touch-screen datalogging and temperature mapping - Built-in USB port for exporting data - Advanced security features (e.g. alarm settings, password-protected controller, padlock-compatible doors) <p>WITH:</p> <ol style="list-style-type: none"> 1. 1 unit AVR - 3KVA and compatible with the unit where it is to be used. Input voltage: 165 V to 280, Output voltage on Battery: 230 V, Frequency: 50/60 Hz auto-detection Liquid CO2 Back up System x 1 unit Cryovials/tube (2 inches length, polycarbonate) x 1 bag of 500 pcs Cryo-gloves x 3 pcs (medium) 2 inch box racks x 1 pc Cryo-boxes (2 inches, thermoplastic) x 10 pcs 2. At least 1 year warranty on parts and services 3. After sales support (training), quick response to requests 	<p>throughout entire cabinet At least 0.93°C steady-state temperature variation over time Warm-up time from -80°C to -50°C in 300 minutes Noise Level (dBA): maximum of 52 dBA Must have Stainless Steel Freezer Interior and locking mechanism Alarm Delay Module: Should eliminate nuisance alarms due to intermittent or transitory conditions. PREFERABLY with Access Key Option Card Access control that includes five key cards. SupportS ISO15693 and ISO14443 protocols. Must have water-cooled condenser option to reduces heat output by almost 60% Should be/have:</p> <ul style="list-style-type: none"> - Touch-screen datalogging and temperature mapping - Built-in USB port for exporting data - Advanced security features (e.g. alarm settings, password-protected controller, padlock-compatible doors) <p>WITH:</p> <ol style="list-style-type: none"> 1. 1 unit AVR - MINIMUM 3KVA or COMPATIBLE with the unit where it is to be used. Input voltage: 165 V to 280, Output voltage on Battery: 230 V, Frequency: 50/60 Hz auto-detection - Liquid CO2 Back up System x 1 unit - Cryovials/tube (2 inches length, polycarbonate) x 1 bag of 500 pcs - Cryo-gloves x 3 pcs (medium) - 2 inch box racks x 1 pc - Cryo-boxes (2 inches, thermoplastic) x 10 pcs 2. At least 1 year warranty on parts and services 3. After sales support (training), quick response to requests especially if the machine has problems
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	MULTIMODE MICROPATE READER	<p>SPECIFICATIONS</p> <ol style="list-style-type: none"> 1. Top and bottom plate reading 2. Multi-color detection 3. Well scanning 4. precise temperature control 5. multi-mode shaking capabilities 6. gas vent 7. Can read all plate formats from 6- to 1536-well in absorbance and up to 384-well in all other detection modes <p>Measurement Modes: Top and bottom reading Endpoint and Kinetic measurements Sequential Multi Excitation measurements Sequential Multi Emission measurements Ratiometric measurements</p> <p>Detection Modes: Fluorescence, Luminescence, UV-Vis Absorbance</p> <p>Upgrade Options: Fluorescence Intensity - (must include FRET upgrade option) Luminescence (flash and glow) - (must include BRET upgrade option) Time-Resolved Fluorescence - (Must be DELFIA ready upgrade option, AlphaScreen/AlphaLISA-ready upgrade option)</p> <p>Microplate Formats: 6 to 1536-well plates, must be user-definable</p>	<p>SPECIFICATIONS</p> <ol style="list-style-type: none"> 1. Top and bottom plate reading 2. Multi-color detection 3. Well scanning 4. precise temperature control 5. multi-mode shaking capabilities 6. gas vent 7. Can read all plate formats from 6- to 1536-well in absorbance and up to 384-well in all other detection modes <p>Measurement Modes: Top and bottom reading Endpoint and Kinetic measurements Sequential Multi Excitation measurements Sequential Multi Emission measurements Ratiometric measurements</p> <p>Detection Modes: Fluorescence, Luminescence, UV-Vis Absorbance</p> <p>Upgrade Options: Fluorescence Intensity - (must include FRET upgrade option) Luminescence (flash and glow) - (must include BRET upgrade option)</p> <p>Time-Resolved Fluorescence - ready upgrade option, AlphaScreen/AlphaLISA-ready upgrade option)</p> <p>Well Scanning:</p>

	<p> Microplate Carrier: Robot compatible Light Sources: High energy xenon flash lamp Detectors: Side window photomultiplier tube Wavelength Selection: Optical Filters: Ex and Em wheels for 8 filters each ; UV/Vis Absorbance Spectrometer: Full spectra or 8 distinct wavelengths in < 1 sec / well Optical Filters: Excitation and emission filter wheels for 8 filters each Optical Path Guides: Top: Liquid filled light guides Bottom: Fiber optics </p> <p> Well Scanning: Microplate Formats: 6 to 1536-well plates, must be user-definable Microplate Carrier: Robot compatible Light Sources: High energy xenon flash lamp Detectors: Side window photomultiplier tube Wavelength Selection: Optical Filters: Ex and Em wheels for 8 filters each; UV/Vis Absorbance Spectrometer: Full spectra or 8 distinct wavelengths in < 1 sec / well Optical Filters: Excitation and emission filter wheels for 8 filters each Optical Path Guides: Top: Liquid filled light guides Bottom: Fiber optics </p> <p> Spectral Range: Filters 240 - 750 nm or 240 - 900 nm for FI, FP, TRF 240 - 750 nm for LUM Spectrometer 220 - 1000 nm for ABS </p> <p>Sensitivity:</p>	<p> Microplate Formats: 6 to 1536-well plates, must be user-definable Microplate Carrier: Robot compatible Light Sources: High energy xenon flash lamp Detectors: Side window photomultiplier tube OR ITS EQUIVALENT Wavelength Selection: Optical Filters: Ex and Em wheels for 8 filters each; UV/Vis Absorbance Spectrometer: Full spectra or 8 distinct wavelengths in < 1 sec / well Optical Filters: Excitation and emission filter wheels for 8 filters each Optical Path Guides: Top: Liquid filled light guides Bottom: Fiber optics </p> <p> Spectral Range: Filters MUST HAVE 240 nm and maximum 750 nm or 240 - 900 nm for FI, FP, TRF 240 - 750 nm for LUM Spectrometer 220 - 1000 nm for ABS </p>
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	<p> FI: < 0.2 fmol/well Sodium Fluorescein TRF: < 30 amol/well Europium High-End TRF for Omega < 3 amol/well Europium LUM: 20 amol/well ABS with Spectrometer: Full spectrum captured in < 1 s/well Selectable spectral resolution: 1 - 10 nm OD range: 0 to 4 OD Accuracy: < 1% at 2 OD Precision: < 0.5% at 1 OD and < 0.8% at 2 OD Read Times: Flying mode: 9 s (96), 16 s (384) Reagent Injection: Injection at measurement position (6 to 384-well) Individual injection volumes for each well (3 to 500 µL) Variable injection speed up to 420 µL/s Up to four injection events per well Reagent back flushing Power requirement: 60 W Shaking: Linear, orbital, and double-orbital with user-definable time and speed Incubation: +5°C above ambient up to 45°C or 60°C Dimensions: Width: 44 cm, depth: 48 cm, height: 30 cm; weight: 28 kg WITH: 1. PRINTER,DESKTOP AND MONITOR FOR THE EQUIPMENT With at least the following specifications: Tower (Minimum requirement) CPU: Intel Core i5 – 6500 GPU: Intel HD Graphics 530 Ram: 4.00 GB Storage Drive: 1 TB System Type: 64-Bit Operating System With Optical Drive </p>	<p> Sensitivity: FI: < 0.2 fmol/well Sodium Fluorescein TRF: < 30 amol/well Europium High-End TRF for Omega < 3 amol/well Europium OR EQUIVALENT LUM: 20 amol/well ABS with Spectrometer: Full spectrum captured in < 1 s/well Selectable spectral resolution: 1 - 10 nm OD range: 0 to 4 OD Accuracy: < 1% at 2 OD Precision: < 0.5% at 1 OD and < 0.8% at 2 OD Read Times: Flying mode: 9 s (96), 16 s (384) Reagent Injection: Injection at measurement position (6 to 384-well) Individual injection volumes for each well (3 to 500 µL) Variable injection speed up to 420 µL/s Up to four injection events per well Reagent back flushing Power requirement: 60 W Shaking: Linear, orbital, and double-orbital with user-definable time and speed Incubation: +5°C above ambient up to 45°C or 60°C Dimensions: MUST BE COMPACT WITH: 1. PRINTER,DESKTOP AND MONITOR FOR THE EQUIPMENT With at least the following specifications: Tower (Minimum requirement) CPU: Intel Core i5 – 6500 GPU: Intel HD Graphics 530 Ram: 4.00 GB Storage Drive: 1 TB System Type: 64-Bit Operating System With Optical Drive </p>
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		<p>Operating System: Windows 10 Power Supply: 280W Monitor Display Size: 24 inches Resolution: 1980 X 1080 Aspect Ratio: 16:9 With Stand Tilt Video Input: HDMI, VGA LED-Backlit</p> <p>2. Printer – minimum requirement Printing Method: print head. Nozzle Configuration. 180 Nozzles Black, 59 Nozzles per Color. Minimum Droplet Size. 3 pl. Ink Technology. Dye Ink. Printing Resolution. 720 x 720 DPI.</p> <p>3. Software: Multi-user Reader Control and Data Analysis Software package should be included</p> <p>4. UPS - this would ensure that during power loss the samples would not be affected. Provides emergency power to a load when the input power source or mains power fails.) - 3KVA, Input: 208-240 VAC, 50/60 Hz, Output: 208-240 VA, capacity: 3KVA/2700 Watts</p> <p>5. User-acceptance Training from Manufactured trained engineers/application specialist</p> <p>6. After sales support - Regular check-up and calibration of the machine., provides quick service/technical support when needed</p> <p>7. Warranty: At least 1 year warranty on parts and service and 2 years additional warranty on services</p> <p>8. Consumables – to enable the user to start immediately with</p>	<p>Operating System: Windows 10 Power Supply: 280W Monitor Display Size: 24 inches Resolution: 1980 X 1080 Aspect Ratio: 16:9 With Stand Tilt Video Input: HDMI, VGA LED-Backlit</p> <p>2. Printer – minimum requirement Printing Method: print head. Nozzle Configuration. 180 Nozzles Black, 59 Nozzles per Color. Minimum Droplet Size. 3 pl. Ink Technology. Dye Ink. Printing Resolution. 720 x 720 DPI.</p> <p>3. Software: Multi-user Reader Control and Data Analysis Software package should be included</p> <p>4. UPS - this would ensure that during power loss the samples would not be affected. Provides emergency power to a load when the input power source or mains power fails.) - 3KVA, Input: 208-240 VAC, 50/60 Hz, Output: 208-240 VA, capacity: 3KVA/2700 Watts</p> <p>5. User-acceptance Training from Manufactured trained engineers/application specialist</p> <p>6. After sales support - Regular check-up and calibration of the machine., provides quick service/technical support when needed</p> <p>7. Warranty: At least 1 year warranty on parts and service and 2 years additional warranty on services</p> <p>8. Consumables – to enable the user to start immediately with</p>
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		<p>their project 200 pcs 96 Well Plates - 100 PCS CLEAR and 100 PCS BLACK (for reading of samples -absorbance and fluorescence).</p>	<p>their project 200 pcs 96 Well Plates - 100 PCS CLEAR and 100 PCS BLACK (for reading of samples -absorbance and fluorescence)</p>
	<p>REFRIGERATED INCUBATOR</p>	<p>SPECIFICATIONS: Volume: at least 99 liters Shelf dimensions: with at least three (3) shelves Unit weight: must not be more than 50 kilograms Interior metal: Aluminum Exterior metal: Painted cold roll steel Operating temperature range: -15c to 40c Temperature uniformity - midrange: 0.5 °c Temperature stability - midrange: 0.1 °c Controller type: Digital Display resolution: 0.1 °c Power voltage, frequency and current: 220 vac, 50/60 hz, 4.0 amps Max hvac load: At least 1023 btus/hr Safety certifications: UI 61010-1, EN 61010-1, CSA 61010-1, CE</p> <p>WITH: 1. 1 unit AVR - 3KVA and compatible with the unit where it is to be used. Input voltage: 165 V to 280, Output voltage on Battery: 230 V, Frequency: 50/60 Hz auto-detection</p> <p>2. After sales support : training, quick response to requests especially if the machine has problems</p> <p>3. Warranty: At least 1 year warranty on parts and service and At least 1 year warranty on services</p>	<p>SPECIFICATIONS: Volume: at least 99 liters Shelf dimensions: with at least three (3) shelves Unit weight: must not be more than 50 kilograms Interior metal: Aluminum Exterior metal: Painted cold roll steel Operating temperature range: 0c to 40c or higher Temperature uniformity - midrange: 0.5 °c Temperature stability - midrange: 0.1 °c Controller type: Digital Display resolution: 0.1 °c Power voltage, frequency and current: 220 vac, 50/60 hz, 4.0 amps Max hvac load: At least 1023 btus/hr With Safety certifications for electrical Equipment for Laboratory use</p> <p>WITH: 1. 1 unit AVR – minimum 3KVA or compatible with the unit where it is to be used. Input voltage: 165 V to 280, Output voltage on Battery: 230 V, Frequency: 50/60 Hz auto-detection</p> <p>2. After sales support : training, quick response to requests especially if the machine has problems</p> <p>3. Warranty: At least 1 year warranty on parts and service and At least 1 year warranty on services</p>

	BIOSAFETY CABINET CLASS II - TYPE A2	<p>SPECIFICATIONS:</p> <p>Dimensions External: 1300 x 2200 x 795 mm (51.2 x 86.6 x 31.3 in) Internal: 1200 x 780 x 495 mm (47.2 x 30.7 x 19.5 in) Work surface with adjustable stand 750 to 960 mm (30 to 39 in) Interior work surface area: 0.56 m2 (930 sq. In) Working height of front window: 200 mm (8 in) Maximum lifting height of front window: 535 mm (21 in)</p> <p>Weight Net weight: 240 kg (530 lbs) Maximum weight load of one-piece work tray: 50 kg (110 lbs) Maximum weight load of divided work tray: 25 kg (55 lbs) (max of 50 kg)</p> <p>Ventilation system Exhaust/ inflow air volume: 400 m2/h (230 cfm) Heat emission at 25c ambient: -0.15kw</p> <p>Filter specification Supply/exhaust air filter: Hepa h 14 en 1822, 99.999% at 0.3 um particle size Additional exhaust filter option (aef): Hepa h 14 en 1822, 99.999% at 0.3 um particle size</p> <p>Performance Certification: Must be En 12469; gs nord cert-tuv Sound pressure level: <55 db (a) Lighting power: >1200 lx</p> <p>Electrical data: Voltage: 1/n/pe 230 v ac Frequency: 50 hz Power consumption: 0.4 kw Current consumption: 1.7 a Protection class: I/ ip 20 Protective measure: Conductor connection</p> <p>Should have: Access port: 4 (2 on each side)</p>	<p>SPECIFICATIONS: work area of approximately four (4) feet and with adjustable stand</p> <p>Weight Maximum weight load of one-piece work tray: 50 kg (110 lbs) Maximum weight load of divided work tray: 25 kg (55 lbs) (max of 50 kg)</p> <p>Ventilation system Exhaust/ inflow air volume: 400 m2/h (230 cfm) Heat emission at 25c ambient: -0.15kw</p> <p>Filter specification Supply/exhaust air filter: Hepa h 14 en 1822, 99.999% at 0.3 um particle size Additional exhaust filter option (aef): Hepa h 14 en 1822, 99.999% at 0.3 um particle size</p> <p>Performance With appropriate Safety Certifications Sound pressure level: <55 db (a) Lighting power: >1200 lx</p> <p>Electrical data: Voltage: 1/n/pe 230 v ac Frequency: 50 hz Power consumption: 0.4 kw Current consumption: 1.7 a Protection class: I/ ip 20 Protective measure: Conductor connection</p> <p>Should have: Access port: 4 (2 on each side)</p>
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		<p>Service valves: Up to 4 (installed through access ports) Receptacles: One double, right side</p> <p>Should INCLUDE:</p> <ol style="list-style-type: none"> 1 unit AVR <ul style="list-style-type: none"> AVR - 3KVA and compatible with the unit where it is to be used. Input voltage: 165 V to 280, Output voltage on Battery: 230 V, Frequency: 50/60 Hz auto-detection After sales support (training from manufactured trained engineers/application specialist), quick response to requests especially if the machine has problems Warranty: At least 1year warranty on parts and service and At least 1year warranty on service 	<p>Service valves: Up to 4 (installed through access ports) Receptacles: One double, right side</p> <p>Should INCLUDE:</p> <ol style="list-style-type: none"> 1 unit AVR <ul style="list-style-type: none"> AVR – MINIMUM 3KVA or compatible with the unit where it is to be used. Input voltage: 165 V to 280, Output voltage on Battery: 230 V, Frequency: 50/60 Hz auto-detection After sales support (training from manufactured trained engineers/application specialist), quick response to requests especially if the machine has problems Warranty: At least 1year warranty on parts and service and At least 1year warranty on service WITH THIRD PARTY VALIDATION OF CALIBRATION
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For your guidance and information of all concerned.

(Sgd)Prof. Jessica K. Cariño
Chair, Bids and Award Committee

Received by the Bidder: _____
Date: _____

