IB 2020-24 – PROCUREMENT OF VARIOUS LABORATORY EQUIPMENT

SECTION VI – SCHEDULE OF REQUIREMENTS

IB No. 2020-24 PROCUREMENT OF Various Laboratory Equipment

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item Number	Description	Quantity	Delivered, weeks/ Months
1	**HPTLC Accessories (Camag Linomat 5)** Technical Specifications: Object support: for objects up to 20x20 cm; Stage drive: stepping motor 3200 steps/rotation, 8 steps=0.1mm. Band length 0 (spot) - 190mm in steps 0.1mm. Speed approx. 10mm/s; the speed is automatically adapted such that a whole number of passes is reached with the volume selected. Dosage syringe drive: Stepping motor 1600 steps/ rotation, 100 nL=120 steps with 100 µL syringe; 100nL=24 steps with µL syringe. Sample dosage syringe: selectable 100 µL or 500 µL. Memory: 10 methods, backup min. 10 years. LCD display: 2 lines of 16 characters each. Main voltage: 220V; 60 Hz/ VA. Gas Supply: 4-6 bar (60-90 PSI), preferably nitrogen; consumption approximately 1.0L/min. Dimension: 360mm width, 510 mm length, 410 mm height. Operation in stand-alone mode or under winCATS or VisionCATS. Sample application as narrow bands using the spray-on technique. Application of solutions onto any planar medium. Semi-automatic operation, only changing of sample (cleaning, filling, and replacing the syringe) is performed manually. Includes: VisonCATS software license for 1 server including 2 years free update. Sample dosage syringe 100µL and 500 µL for Linomat.	1 lot	45-60 calendar days from receipt of NTP
2	**Refrigerated Micro centrifuge** Technical Specifications: Maximum speed: at least 15,000 rpm (in 100 rpm increments) Maximum RCF: at least 20,627 x g Maximum Capacity: at least 36 x 1.5/2.0 mL Run time: 99 min, 59 secs, continuous run, short run Noise Level at Max. Speed: <58 dBa Temperature Range: -10°C to 40°C (in 1°C increments) Ambient Temperature Range: 5°C to 35°C Accel/deccel profiles: Fast, soft Maximum Heat Dissipation into Room: 1433 Btu/h (420W) Electrical Requirement: 220 – 240 VAC, 50/60Hz Weight: 32 kg (70.5 lb.) Features: Spin more samples per run with a maximum capacity of 36 x 1.5/2.0 mL tubes Shorten run times with fast acceleration and deceleration Inclusions: 1. Fixed Angle, Polypropylene with Snap-on Lid, 24 x 1.5/2.2 mL with 24 placers Rotor 2. 1 unit 3KVA AVR Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration. Packaged with: After sales support (training from manufacturer's trained engineers/application specialist for at least five (5) participants), quick response to requests (within 3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation. No training will be considered non delivery of items	1 unit	
3	**Biological Safety Cabinet Level II, 4 ft.** Technical Specifications: Work surface with adjustable stand: 750 to 960 mm (30 to 39 in); Interior work surface area: 0.56 m2 Working height of front window: 200 mm; Maximum lifting height of front window: at least 535 mm; Maximum weight load of one-piece work tray: at least 50 kg Maximum weight: load of divided work tray: 25 kg; Ventilation system: Exhaust/ inflow air volume: 400 m2/h (230 CFM); Heat emission at 25°C ambient: -0.15kW 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 Certification: EN 12469; GS Nord Cert-TUV; Sound pressure level: <55 dB (A); Lighting power: >1200 lx Electrical requirement: 220-230 VAC/50-60 Hz; Power consumption: 0.4 kW; Current consumption: 1.7 A; Protection class: I/ IP 20 Protective measure: Conductor connection; Service valves: up to 4 (installed through access ports); Receptacles: One double, right side Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration. Packaged with: After sales support (training from manufacturer's trained engineers/application specialist for at least five (5) participants), quick response to requests (3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation. Inclusion: 1 unit 3kVA AVR, Third Party Calibration Certificate. No training will be considered non delivery of items	1 unit	

4	**Upright Laboratory Freezer -40 °C** Capacity: at least 368L Access security: Key Lock, Padlock Standard Certifications/Compliance: cULus, CE, UL, FDA Class I Electrical requirement: 220-230V, 60Hz, 12A; Plug Type: NEMA 6-15 Temperature Range: −10° to −40°C; Type: Ultra-Low Freezer, Upright; Inner Doors: at least 4 Interior: Painted Galvaneel - Standard, Stainless-steel – Optional Line Voltage Indicator: Buck/Boost; Operating Modes: Standard Operation Regulatory Approvals: UL; Smart View Compatibility: Smart-Vue Compatible Vial to Energy Ratio: 2.95 watts/100 2mL vials (box); Vial to Footprint Ratio (English): 3154 vials/cu. ft.; Vial to Footprint Ratio (Metric): 33803 vials/cu. m Display: Push Button LED; Water Cooled: Optional; Voltage Compensation: Buck/Boost Shelves: at least 3; holds at least 240 boxes; Insulation: Polyurethane Foam Refrigerant: R404A; Vial Capacity: at least 24,000 x 2mL Inclusions: 1 unit 3kVA AVR Packaged with: After sales support (training from manufacturer's trained engineers/application specialist for at least five (5) participants), quick response to requests (3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation. Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration. No training will be considered non delivery of items	2 units	
5	**Drying Oven** Technical Specifications Volume: at least 3.0 cu. ft. (85.0 L) Shelf Dimensions (W × D): 409 mm × 478 mm Interior Metal: 430 SST Exterior Metal: Painted Cold Roll Steel Operating Temperature Range: Amb +20 - 306C Temperature Uniformity – Midrange: 3.5 °C Temperature Stability – Midrange: 0.3 °C Controller Type: Digital Display Resolution: °C Power Voltage, Frequency and Current: 220-240VAC, 50/60 Hz, 14.0 Amps Max Hvac Load: 5732 BTUs/hr. Safety Certifications: UL 61010-1, EN 61010-1, CSA 61010-1, CE Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration. Packaged with: After sales support (training from manufacturer's trained engineers/application specialist for at least 5 participants), quick response to requests (3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation. Inclusive of 1 unit 3KVA AVR	1 unit	
6	**Laboratory Refrigerator** Technical specifications Capacity: at least 326 L; Plug Type: NEMA6-15P; Temperature: 1° to 8°C; Type: High Performance Refrigerator; Doors: 1 Electrical Requirements: 220- 230V /60Hz; Interior: High-impact power paint coat Amperage: 6A; Breaker: 15A; Cabinet Material: Scratch-resistant painted; Casters: 2 in. (5cm) casters (two locking, two non-locking), factory installed Insulation: CFC-free; Refrigerant: CFC-and HCFC-free R134A; Shelves: 4 or more; Temperature Control: Microprocessor Defrost: Automatic • Adjustable temperatures between 1° and 8°C (factory preset at 4°C) • Automatic defrost and condensate removal • Microprocessor control • Digital electronic technology designed to simplify operation and deliver greater accuracy • Icon-based controls • Large, easy-to-read digital display of temperature within 0.1°C • Graphic thermometer is steady green when temperature is normal, flashes top bar for over temperature, flashes bulb for under temperature • Sensor automatically initiates defrost cycle on demand, eliminating need for a defrost timer, minimizing frost buildup, and optimizing coil efficiency Alarm System • Audible/visual warnings for temperature deviations or power failure • Key-operated ON/OFF/ALARM ON master switch for set point security • Push-button alarm test and remote alarm contacts • Alarm silence, ring back, and auto reset • Controller battery backup system • Alarm set points are preset to warn of temperature deviation at 5.5°C over temperature and 1.5°C under temperature Construction • Positive forced-air circulation systems • Industrial-grade cabinet construction and compressors • Self-closing, key-locked doors • Epoxy-coated, open-wire shelves adjustable in 1" (2.5cm) increments • Cold-rolled steel interior and exterior finished with high-impact powder paint coating • Interior lights with door-activated ON/OFF switch and independent switch on control panel Warranty: 3 years on parts and services against manufacturers defect with annual maintenance and calibration Packaged with: 1 unit AVR, After sales support (training from manufacturer's trained engineers/application specialist for at least 5 participants), quick response to requests (3 days from notice) especially if the machine has problems, free services, and training on the use of the equipment simultaneous to installation	1 unit	
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Name of Bidder over Printed Name

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Date