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SUPPLEMENTAL/BID BULLETIN
No. CEFA-SB-2024-014

This Supplemental/Bid Bulletin No. CEFA-SB-2024-014 is issued by the BAI Special Bids and Awards Committee (SBAC) for the Cold Examination Facility for Agriculture (CEFA) to all participating bidders to clarify, amend and/or modify certain provisions and requirements for the various procurement projects.

All portions of the Bidding Documents affected by these amendments shall be made to conform the same. Amendments/inclusions/clarifications/revisions made herein shall be considered as integral part of the Bidding Documents.

Technical and Scientific Equipment: MALDIToF SYSTEM

IB NO.	LOT NO.	AMENDMENTS/MODIFICATIONS		
		FROM	**TO**	**SPECIFIC SECTION OF THE BIDDING DOCUMENT**
CEFA-SB-2024-011	**5**	CEFA PR-SB-2024-068	**CEFA-SB-2024-068**	Section VI. Schedule of Requirements and Section VII. Technical Specifications
		Please refer to the attached updated technical specifications to be included in the bidding document posted on the PhilGEPS/BAI website.		

Please be guided accordingly.

MARIE BERNADETTE T. BONO, DVM
Vice-Chairperson, SBAC for CEFA

Received:

_____
Bidder/Authorized Representative
Date:_____

	Includes the following • 1 unit Centrifuge Platform: Microfuge Maximum g-Force: 16163 x g Max Capacity Volume Range: -52.8mL Friction Reduction System: Brushless Induction Weight: 6.4 kg (14.1 lb) Depth: 26.6 cm (10.5 in) Humidity Restriction: <80% (non-condensing) Maximum Speed: 14,800 rpm Timed Run: 10 sec to 99 min, 59 sec in 1 sec increments, continuous run or short run (pulse) Temperature Range(s): Ambient temperature range: 4° to 40°C Installation Category: II Width: 22.6 cm (8.9 in) Height: 17.6 cm (6.9 in) Power Requirement: 50/60 Hz, 220-240 VAC, 95 W • 1 unit Heating Block Temp. Range: Ambient +5°C - 150°C Temp. Accuracy: ±0.2°C Timer (temp.): 99 hours 59 minutes Heating Method: Cartridge Heater Capacity: 2 blocks Material: Energy plate and sample block: Aluminum inside and insulating side: Stainless steel Weight: 7kg (without block) Dimension (mm): W 238 x D 230 x H 170 Wattage: 600W Power: AC 100-240V (*220-230V: CE cert) Frequency: 50/60 Hz • 1 unit Vortex Mixer Vortex mixer (shaker) with variable speed of 0 to 3,000 rpm for gentle shaking to rapid vortexing of samples Can be operated by touch or in continuous mode Universal rack and rubber platform for vortexing flasks and test tubes, and attaching centrifuge tubes and ampules Equipped with rubber feet and a shock-absorber system Acrylonitrile butadiene styrene (ABS) housing for durability and chemical resistance • 2 units 10KVA UPS

Annex A. Technical Specifications for 1 MALDIToF System

Item	Specifications
1 system MALDIToF Mass Spectrometer	**MALDI-TOF (Matrix Assisted Laser Desorption Ionization-Time of Flight) Mass Spectrometry to measure a unique molecular fingerprint of an organism in Microbiology laboratory** • Bench top spectrometer instrument • Full functionality of a mass spectrometer • Highly Mass Accuracy and Sensitivity • High Throughput >480 T/H • Any position on the target can be used as the calibration. • An Open and Comprehensive Database that integrates a ready to use reference library of microorganisms comprising thousands of individual strains of microorganisms. The library is constantly maintained and updated. • Main spectra projections (MSPs) can be created and added to the database by users. • Continuous Database Expansion and Expert Support • Full Spectrum Resolution (FSR) with broadband focusing mode (PANTM) • Allow for Small molecule resistance mechanism detection function for scientific research • Allow for Microbial typing and homologous clustering analysis **Database Requirement** Reference local database with **up to 15,000 reference strains** corresponding to at least 4,000 unique species and at least 1,000 microbial genus **Local database**: More than 4000 species in local database Archaea local databases ≥ 15 species Filamentous fungi local database ≥ 600 species Have published paper to prove that the system can discriminate *Escherichia coli* and *Shigella* species **Detection Performance** Identification mass range: 1-500kDa The flight distance is **at least 0.9 meter** Mass resolution (linear mode): ≥6000 (FWHM) @ Angiotensin Identification sensitivity: 1 fmol/uL human fibrinopeptide B (signal-to-noise ratio ≥ 100:1) Mass accuracy: ≤ 150 ppm (external calibration) Mass accuracy: ≤100 ppm (internal calibration)

	Consumables to facilitate the identification • Matrix reagents: stable liquid dosage forms without preparation, **or equivalent**, stored at room temperature • Blood culture positive sample pretreatment reagents • Mold pretreatment kit (Single sample pretreatment less than 3 min. CE-IVDR) • With two kinds of target plate to choose: Reusable target plate and disposable target plate • Calibration kit must be from the same manufacturer **Hardware Requirement** • Straight flight tube, with the length of flight distance of **at least 0.9 meter** • Built-in nitrogen laser with a frequency of 1-60 Hz, **or better**, laser warranty of 400 million shots • Compatibility with both Positive and Negative ion mode • Vacuum system: The backing pump using a built-in oil-free diaphragm pump (no need wash), and the pumping speed of high-performance vacuum pump ≥300L/S • Original vacuum system with fast target exchange. Time of vacuum generation below 3×10-6mbar ≤ 50s • 480 samples identification in 1 hour • Distinctive integrated circuit board with dust-free air duct to reduce the noise and failure rate **Software Requirement** • One software to control the MALDI-TOF mass spectrometer, data acquisition and subsequent analysis in the reference spectra database, and evaluation of measurements • Support identification results of mass spectrometry • Support the morphological diagrams of microorganisms from the authority (plate colony map and staining map) • Clustering analysis software functions: Supply of the function of principal component analysis and simulated gel map, and the functions of PCoA and T-SNE analysis, which can be used for microbial traceability analysis, bacterial species typing and protein expression difference analysis, etc • Artificial Intelligence Typing Software: Combining with artificial intelligence algorithms and intelligent microbial type software, the equipment shows excellent performance for common microbe and some difficult-t-identify bacteria, such as Listeria species • Convenient function of statistical assistant, easy to retrieve patient test records. Ensure the records can be recalled in any time just by the statistical assistant software based on the sample number list without keeping the original plates to scan again. • Antibiotic Hydrolysis Analysis Software: Drug Resistance Analysis

- CE-IVD kits: Carbapenemase Activity IVD Kit and Cephalosporinase Activity IVD Kit)
- **Computer Specifications:**
  - **Description: Only one computer controls for both the instrument operation and access to local database without the need of accessing the cloud or an external computer**
  - **Processor: 12th Gen Intel Core i5, 10 cores**
  - **Processor speed: minimum of 3.7 GHz**
  - **RAM: Minimum of 16GB**
  - **OS" Microsoft Windows 11 Pro or later version**
  - **24-inch monitor with HDMI connection cable**
  - **Wired keyboard and wired mouse included**
  - **PC Card for MALDI instrument connection and communication**

Features:

1. Accurate result
   - Intuitively and synchronously display identification result and morphological reference
   - Clinical database including over 4000 species, covering 20000 strains to account for diversity greater accuracy.
   - 300 kinds of specialty bacteria covering filamentous fungi, yeasts, noca bacteria, legionella and etc.
   - Customize database to meet need of different microbial labs.

2. Reliable hardware performance
   - Vacuum pump without oil is free of maintenance and less cost.
   - Distinctive integrated circuit design
   - Advanced hyper-efficient ion propulsion paten technology
   - Flight tube temperature compensation technology

3. Cost-effective Tool
   - Acquisition and identification function realized in one application software.
   - Target plate is reusable that help to save cost and could add sample at 96 spot at most of the time.
   - Strains identification applied makes turn-around-time from about two days to 15 mins, which save more time for doctors to give medicine and even rescue critical patients.

4. Convenient operation
   - One step to target-in for detection with reusable and traceable plate.
   - Rapidly test 96 samples in one plate only within 12 minutes.
   - Freely set control target location for monitoring process
   - Several sample pretreatment reagent selections for several microbes.