Mississippi State University
Notice of Proposed Sole Source Purchase
245-67

Mississippi State University anticipates purchasing the item(s) listed below as a sole source purchase. Anyone objecting to this purchase shall follow the procedures outlined below.

1. Commodity or commodities to be purchased (make, model, description):

A. Item/Product: Human NIBP Nano Foundation System.
https://www.adinstruments.com/products/human-nibp-nano-wrist-unit

https://www.adinstruments.com/products/human-nibp-nano-system

Description: the Human NIBP Nano Foundation System allows recording of a continuous blood pressure signal from an adult human via a non-invasive dual finger cuff system. The system contain the FMS910804 Human NIBP Nano Wrist Unit (Manufactured by Finapres Medical Systems) one MLA382 Human NIBP Nano Height Correction Unit (HCU) and the Human NIBP Nano Interface (which both provides power to the Wrist Unit and facilitates communication with LabChart via USB). The cable between the wrist unit and the interface is 3m long.

B. Item/Product: Finger Cuff for Human NIBP Nano.

https://www.adinstruments.com/products/finger-cuffs

Description: 3 fingers cuff (small, medium and large, manufactured by Finapres Medical Systems) are designed for use with the INL382 Human NIBP Nano. The finger cuff allows the system to obtain beat-to-beat blood pressure, stroke volume, cardiac output, peripheral vascular resistance and heart rate by using continuous finger photoplethysmography.

C. Item/Product: LabChart 8 Pro Software (for Windows and Mac)

https://www.adinstruments.com/products/labchart

Description: The MLS260/8 LabChart 8 Pro Software (for Windows and Mac) is a full installer of ADInstruments research software, which includes LabChart Software and all corresponding LabChart Analysis Software Modules. The ADInstruments data acquisition systems, LabChart 8 software, and Non-Invasive Blood Pressure equipment, have a number of features other competing data acquisition and research systems cannot match.

D. Item/Product: Equivital Starter Pack

https://www.adinstruments.com/products/equivital-starter-pack-4-belts

Description: The Equivital Starter Pack contains one Equivital EQ02+ SEM, one Equivital SEM USB Lead, one Equivital Bluetooth Dongle, 5 different size Equivital B6 Sensor Belts (between them covering subjects with lower chest measurements of 74-120cm) and the Equivital Device Enabler for LabChart (LabChart Software Sold Separately). This is all the hardware needed to wirelessly record ECG, Heart Rate, expansion derived Breathing Rate, Skin Temperature and XYZ Accelerometry data from one subject at a time directly into LabChart.

2. Explanation of the need to be fulfilled by this item(s), how is it unique from all other options, and why it is the only one that can meet the specific needs of the department:

The elements to be acquired will be used to study the effects of physical activity and different physical exercise programs on a clinical population's cardiorespiratory and vascular systems. We believe that exercise and health are inseparable components; therefore, this is a fundamental area for our Clinical Exercise Physiology program. The requested equipment will enable us to develop new and better physical activity intervention programs by determining the best options we could implement to significantly impact the health of people with clinical conditions. These programs will be developed with a thorough understanding of their effects on the cardiorespiratory and vascular systems of our participants. Additionally, this initiative will enable our master's and doctoral students to gain new knowledge and skills through the use of state-of-the-art equipment.

Currently, this is the only system capable of integrating cardiac, respiratory, hemodynamic, body temperature and movement intensity signals. Thanks to the software that will be acquired, it is possible to obtain all these data synchronously and in real-time. In addition, it supports high-speed integration across analogue transduction, signal conditioning, data logging, and validation. Hardware and software allow complex analysis to determine the central nervous system's influence on cardiac and hemodynamic variables. It allows an integrated analysis of heart rate and blood pressure variability, fundamental elements in the response to exercise in clinical populations.

3. Name of company/individual selling the item and why that source is the only possible source that can provide the required item(s):

Name of the company: ADInstruments.

Salesperson: Tyler Baker email: t.baker@adinstruments.com

ADInstruments Inc. is the manufacturer of the LabChart 8 Pro software as well as the Human NIBP Nano Interface hardware included in quote Q24-136790 and directly distributes all the requested items. For the Human NIBP Wrist Unit and Finger Cuffs, ADInstruments is the

exclusive distributor. These items must be sourced from ADInstruments due to agreements held with the manufacturer, Finapres Medical Systems. Together the Human NIBP Wrist Unit is only able to function with our Human NIBP Nano Interface and LabChart software. Thus, ADInstruments is the only vendor capable of supplying such a system and research setup.

4. Estimated cost of item(s) and an explanation why the amount to be expended is considered reasonable:

As reflected in the budget request, the cost of the system (including software and hardware) is $47,175. Considering that no other system has the same capabilities as the equipment to be acquired, we believe that the cost-benefit ratio is more than adequate.

We believe that having such a system, in addition to the benefits already explained above, puts our department in a better position to both solicit and attract external funding as well as to attract and recruit students for our graduate programs (Master and PhD).

5. Explanation of the efforts taken by the department to determine this is the only source and the efforts used to obtain the best possible price:

Since August, we have been looking for a system that can integrate different cardiovascular and hemodynamic signals.

This process included contacting multiple companies, such as BIOPAC and CNsystems, comparing product features, and conducting a detailed cost-benefit analysis. After evaluating their offerings, we found that neither company could provide equipment that meets our specific requirements, as their systems lack the capability to integrate the full range of signals essential for advanced cardiovascular and hemodynamic research, particularly during exercise.

After this process, it became clear that the ADInstruments system not only fulfils our integration needs but also offers a higher level of versatility and precision than the rest of providers. The comprehensive features offered by ADInstruments are essential for maintaining the highest standards in research and teaching in clinical exercise physiology within our department.

Any person or entity that objects and proposes that the commodity listed is not sole source and can be provided by another person or entity shall submit a written notice to:

Jennifer Mayfield, CPPO
Director of Procurement & Contracts
jmayfield@procurement.msstate.edu
Subject Line must read “Sole Source Objection”

The notice shall contain a detailed explanation of why the commodity is not a sole source procurement. Appropriate documentation shall also be submitted if applicable.

If after a review of the submitted notice and documents, MSU determines that the commodity in the proposed sole source request can be provided by another person or entity, then MSU will withdraw the sole source request publication from the procurement portal website and submit the procurement of the commodity to an advertised competitive bid or selection process.

If MSU determines after review that there is only one (1) source for the required commodity, then MSU will appeal to the Public Procurement Review Board. MSU will have the burden of proving that the commodity is only provided by one (1) source.