USM SSP 22_006 Notice of Proposed Sole Source Purchases of the following:

RFx: 3150003880: Liberty Blue Automated Microwave Peptide Synthesizer and Prodigy Purification System

http://www.ms.gov/dfa/contract_bid_search/Bid

Comments/objections will be received as required per Section 31-7-13 (C) of the Mississippi Code until 8:00 a.m. (Central Time) on October 12, 2021.

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 written notice, by 8:00 AM CST, October 12, 2021, to:

Steve Ballew
Director of Procurement & Contracts 118 College Dr. Box 5003 Hattiesburg, MS 39406
bids@usm.edu
Phone: 601-266-4131

Subject Line must read "Sole Source Objection – USM SSP 22_006"

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, USM determines that the commodity in the proposed sole source request can be provided by another person or entity, then USM 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 USM determines after review that there is only one (1) source for the required commodity, then USM will appeal to the Public Procurement Review Board. USM will have the burden of proving that the commodity is only provided by one (1) source.

Run Dates: 9/25, 10/2

The University of Southern Mississippi

Notice of Proposed Sole Source Purchase

SSP 22_006

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

1. Description of the commodity that USM is seeking to procure:

Liberty Blue automated microwave peptide synthesizer: The Liberty Blue automated microwave peptide synthesizer features a 4-minute cycle time along with a 90% solvent reduction, based on High Efficiency Solid Phase Peptide Synthesis (HE-SPPS), developed in 2013 and CarboMAX™ methodology, developed in 2018. This system is utilized in hundreds of laboratories worldwide and provides unparalleled peptide quality, based on its unique methodology and use of microwave energy. The Liberty Blue features the latest in engineering for fluidic deliveries, true internal temperature feedback control, and software control.

Prodigy Purification System: The Prodigy is a robust, easy-to-use HPLC system for any separation need. The system includes an industry exclusive variable temperature (up to 80 °C) column oven for up to 30x250 mm preparative columns providing the best peak resolution. The system can flow at rates from 0.1 to 50 mL/min with maximum operating pressures up to 300 bar (4351 psi) via a binary solvent pump that is programmable for gradient, linear, step, and isocratic modes. The use of a high-precision variable loop injector is used to deliver the sample to the column. The system can hold up to 5 columns. A variable wavelength UV detector (190 - 500 nm) uses a stainless-steel flow cell for robust detection. A fully enclosed fraction collection module utilizing 15 positions with 16, 25, 30, and 37 mm rack options collect the purification samples. Collection volumes up to ~140 mL per position. Easy to use software that is intuitive loaded on an all-in-one, 21.5" touchscreen computer that includes CEM proprietary focused gradient calculator for conversion from analytical to preparative runs. The system is automated, one-touch startup, cleaning, and maintenance routines for easy operation.

2. Explanation of why the commodity is the only one that meets the needs of the agency:

This instrumentation will provide us with state-of-the-art capabilities in peptide synthesis and purification unmatched by other suppliers. We require an instrument package that will allow for high throughput peptide synthesis and purification capabilities. Due to a planned diverse user base (biologists, drug development, marine scientists and materials chemists) we require significant flexibility in the scale and also application chemistries to satisfy this broad user base. Finally, we require an intuitive system with integrated software which makes it simple to train and have a number of users from students through to faculty able to effectively operate the synthesis and purification aspects of peptide synthesis. All of these research aims are supported by the CEM Liberty Blue automated peptide synthesizer coupled with the Prodigy Purification System.

The University of Southern Mississippi

Notice of Proposed Sole Source Purchase

SSP 22_006

3. Explanation of why the source is the only source is the only person or entity that can provide the required commodity:

This instrumentation will provide us with state-of-the-art capabilities in peptide synthesis and purification unmatched by other suppliers. The CEM liberty blue automated peptide synthesis provides a number of key and proprietary features which uniquely match the capabilities we are seeking within the school of polymer sciences and engineering at USM. These include:

Short coupling times (4min) resulting from the microwave heating and optimized fluid dynamics of the instrument, suitable for our applications in high throughput peptide library preparation and characterization. Further, the efficient solvent use will allow for significantly cheaper operating costs of the instrument and less waste from an environmental standpoint.

The Liberty Blue has a synthesis scale range from 5 umol to 5 mmol. This scale range is unmatched by any other supplier. This is integral for our use where we will require synthesis of a diverse range of peptide scales from materials chemistry applications and gram scale quantities to milli gram scales for biochemistry applications proposed.

The liberty blue provides application flexibility for automation of peptides including orthogonal deprotections, cyclization's, disulfide bridge formation and the inclusion of non-natural amino acids – capabilities unavailable from other suppliers. This is integral to our planned work where we aim to modify peptides for inclusion with covalent polymers, with fluorescent modalities or through the incorporation of glycomimetic based groups, all feasible with this current instrumentation.

Finally, the Prodigy purification system is a peptide purification system designed to integrate directly with the Liberty blue peptide synthesis system. This provides an optimized workflow for synthesis and purification at scale and with rapid high throughput capabilities. The proprietary software interface on both instruments shares many similarities to support this optimized workflow and also will be advantageous in training students and new users alike.

4. Explanation of why the amount to be expended for the commodity is reasonable:

The purchase price is considered reasonable as significant effort has been made to obtain quotes from other suppliers however no one supplier can match the operational capabilities, streamlined workflow and finally price offered by CEM. The cost is justified as this will bring unparalleled capabilities to both the University of Southern Mississippi and the state of Mississippi being the first purchase of a dedicated peptide synthesis and purification system. We anticipate this equipment will be utilized for high caliber research across multiple faculty at USM as well as across the state of Mississippi through collaborative projects and funding arrangements.

The University of Southern Mississippi

Notice of Proposed Sole Source Purchase

SSP 22_006

5. Efforts that the agency went through to obtain the best possible price for the commodity:

Other vendors were researched but none were found that could meet the required needs with respect to peptide synthesis and purification. Further, as this will be the first peptide synthesizer and purification system for CEM in the state of Mississippi a significant discount (30%, $39,600) was negotiated before accepting the finalized quote.

Advertisement Schedule	Date
1st scheduled	**September 25, 2021**
2nd scheduled	**October 2, 2021**

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 written notice, by 8:00 AM CDT, Tuesday, October 12, 2021 to:

Steve Ballew

Director of Procurement & Contracts

steve.ballew@usm.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, USM determines that the commodity in the proposed sole source request can be provided by another person or entity, then USM 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 USM determines after review that there is only one (1) source for the required commodity, then USM will appeal to the Public Procurement Review Board. USM will have the burden of proving that the commodity is only provided by one (1) source.