United States Department of Agriculture
Decision to Restrict Competition under the Simplified Acquisition Threshold
Identification Number: 1169660/1232SA26Q1189

In accordance with the Revolutionary Federal Acquisition Regulation (FAR) Overhaul (RFO) FAR 12.102 (a), the following documents the decision to restrict competition for this acquisition.

(1) Mission Area and Contracting Activity.

Requisition Number: 1169660

Requesting Activity Agency: ARS

Contracting Activity: Procurement of High-Speed Optical Coherence Tomography (OCT) System for Analysis of Poultry Tissue

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]		[redacted]

(3) Brief Description of Supplies or Services

This procurement is for a high-speed, research-grade spectral-domain OCT system capable of rapid 1D/2D/3D mapping of chicken tissues and subsurface muscle structures. The system must be turnkey and provide an imaging depth of at least 1 mm in tissue (or measured in water), an axial resolution better than 2.3 µm in tissue (or measured in water), and a maximum A-scan rate of at least 240 kHz. The OCT scan head must support longer working-distance objectives when required for expanded standoff distances, up to 25 mm.

(1) Suggested Source

The suggested contractor is:
THORLABS, Inc.
2722 ABC Drive
43 Sparta Avenue
Newton, NJ 07860, USA
UEI: LAV9YWRCEGX1

(4) Justification for Restricting Competition and the Basis for that Decision.

A. Explain the unique qualifications/characteristics of the proposed contractor or product and why no other contractor or product/service can meet the Government's need.

The acquisition of the high-speed, research-grade spectral-domain OCT (SD-OCT) system must be restricted to Thorlabs, specifically their Ganymede-series GAN632C1, due to several unique qualifications and characteristics not offered collectively by any other identified commercial vendor. Market research identified only a small number of commercial manufacturers capable of producing SD-OCT systems with comparable performance—Thorlabs, Lumedica, Santec, and Wasatch Photonics—yet none except Thorlabs met all of the technical requirements.

Thorlabs is the only vendor offering a fully turnkey SD-OCT imaging system that meets all required specifications, including:

- Imaging depth of 1 mm or greater in tissue/water and larger than 1.5 mm in air
- Axial resolution of 2.3 µm or less in tissue/water and up to 3.1 µm in air
- Application software and software development kit (C++) for data acquisition and system control
- Support for the working distance up to 25 mm

Based on the combination of required performance, turnkey system capabilities, and SDK/software integration, only Thorlabs meets all functional, technical, and operational requirements. No other contractor or product currently available in the commercial market can provide a SD-OCT system that satisfies the specifications in full.

B. Describe market research conducted and the results or the reason why no market research was conducted.

Based on the market research, only a limited number of commercial vendors were identified that manufacture high-speed, research-grade SD-OCT systems suitable for the required performance specifications. Searches of mandatory and preferred sources, including Federal Prison Industries, AbilityOne, and GSA Advantage, confirmed that no Government-wide or GSA contract sources offer an OCT system meeting the technical needs. The vendors identified through open-market commercial research include Thorlabs, Lumedica, Santec, and Wasatch Photonics. However, these vendors provide systems with different configurations and performance capabilities. After comparing axial resolution, A-scan rate, imaging depth, working-distance options, and software/SDK support across all systems, the vendors whose product meets all required specifications are Thorlabs, specifically the Ganymede-series GAN632C1 [redacted]

Certifications & Approvals

(5) Technical / Requirements Personnel Certification

I certify this requirement meets the Government's minimum need and that the supporting data, which forms a basis for this justification, is complete and accurate.

[redacted]

(6) Contracting Officer's Certification

I certify that the data supporting the recommended use of other than full and open competition accurate and complete to the best of my knowledge and belief. I hereby approve this justification.

[redacted]