PRESOLICITATION NOTICE

Notice ID: NOI-FDA-134639

Subject: IR System Add-ons (Microplastics)

SECTION 1 – IDENTIFICATION AND CLASSIFICATION CODES

Contracting Office: U.S. Food and Drug Administration, Office of Acquisitions and Grants Services (OAGS), CDER Acquisition Branch

NAICS Code: 334516 – Analytical Laboratory Instrument Manufacturing

Product Service Code (PSC): 6640

SECTION 2 – SET-ASIDE STATUS

A determination has been made by the Contracting Officer that competition to the maximum extent practicable is not feasible because only one source is reasonably available, consistent with RFO 12.201-1(c) and RFO 13.101(b). The intended award is single-source to Photothermal Spectroscopy Corp, as the original equipment manufacturer (OEM).

All responsible sources that believe they can fully satisfy this requirement are invited to submit a capability statement. See Section 5 for details.

SECTION 3 – DESCRIPTION OF REQUIREMENT

Per RFO 5.101(c)(4)(i), the following description is provided to allow prospective sources to make an informed business judgment about this requirement.

The Food and Drug Administration (FDA), Human Foods Program (HFP), Office of Laboratory Operations and Applied Sciences (OLOAS), Office of Chemistry and Toxicology (OCT), Division of Analytical Chemistry (DAC), Spectroscopy and Mass Spectrometry Branch (SMSB) requires the purchase of a counter-propagating configuration upgrade, which will be coupled to the existing mIRageLS instrument to enable the development of spectroscopic methods for detection of both microplastics (greater than 1 µm) and nanoplastics (less than 1 µm) in human foods. Micro- and nanoplastics have been widely reported in human foods, and these emerging particles of concern are a high priority analyte for HFP. The purchase of this counter-propagating mode upgrade will increase spatial resolution of the mIRageLS to allow collection of optical- photothermal infrared- Raman (O-PTIR) and Raman spectra from a broader size range of plastic particles than the current co-propagating configuration, including both micro- and nanoplastics. Currently, micro-sized plastics are readily detectable using the co-propagating mode available on the mIRageLS, but most nanoplastics are below the spatial resolution in this instrument configuration. The addition of the counter-propagating configuration will provide improved spatial resolution (below 500 nm) to detect nanoplastics. It is crucial for the existing mIRageLS within SMSB to be equipped with counter-propagating mode to enable researchers to develop simultaneous O-PTIR and Raman methods to characterize both microplastics and nanoplastics in human foods as scientific knowledge about the potential health effects of these particles evolves in the coming years.

Below is a list of minimum requirements for this acquisition. Equivalent requirements that differ from these minimum requirements shall be justified by the proposing vendor and evaluated by the Project Advisory Group prior to purchase.

System shall have these general requirements:

Counter-Propagating Configuration Upgrade for mIRageLS Optical- Photothermal Infrared- Raman-Fluorescence (O-PTIR-R-FL) Microscope

Specific minimum requirements for acquisition:

1) 100% integration to the existing mIRageLS Optical- Photothermal Infrared- Raman-Fluorescence (O-PTIR-R-FL) Microscope.
2) Optical components (e.g. Cassegrain objective, mirrors/switches, etc.) necessary to collect high-quality Raman and O-PTIR spectra with sub-500 nm spatial resolution in counter-propagating mode using existing mIRageLS system
3) Quantum cascade laser (QCL)-based IR illumination from below the sample through a Cassegrain objective, along with visible 532 nm probe beam detection from above the sample through a high numerical aperture refractive objective to enable counter-propagating IR mode with sub-500 nm spatial resolution
4) Transmission detection allowing for measurements of transparent samples in transmission mode with respect to the visible probe beam
5) Seamless integration of counter-propagating mode components into current mIRageLS setup, resulting in an upgraded mIRageLS that is capable of performing Raman and O-PTIR measurements in both co-propagating and counter-propagating modes
6) All components associated with the upgrade must be compatible and functional with the existing mIRageLS system and certified by the existing instrument's manufacturer
7) Software-controlled, and integration with existing FDA Photothermal mIRageLS to establish full system communication and control through the single, existing software currently at FDA. The configuration system must have electronic switching between co-propagating and counter-propagating mode via the software

SECTION 4 – INTENDED SOURCE AND BASIS FOR NONCOMPETITIVE ACTION

Pursuant to RFO 5.101(c)(4)(vii), the following identifies the intended source and explains why competition is not practicable for this requirement.

Intended Contractor:

Photothermal Spectroscopy Corp.

325 Chapala St Santa Barbara, CA 93101

CAGE Code: 83PQ8

The basis for limiting this solicitation to a single source is that only one source is reasonably available, consistent with RFO 13.101(b) and the single-source standard at RFO 12.201-1(c).

Photothermal Spectroscopy Corp "PSC" is the one and only supplier that can meet the performance requirements outlined in the Statement of Work. The counter-propagating mode upgrade must be 100% compatible with the existing Photothermal mIRageLS to provide a seamless integration and establish full system communication and control through the single, existing software currently at FDA. PSC owns the patent for intellectual property protecting the O-PTIR technology and its associated capabilities. O-PTIR is protected by multiple patents and is exclusively available from

Photothermal Spectroscopy. PSC will be the only provider to support the FDA in this requirement of the necessary parts and knowledgeable installation team to ensure 100% compatibility of the upgrade with the current FDA instrument. Photothermal is a US company and is a registered small business. A Brand Name acquisition is recommended, since only one provider meets the requirements for the acquisition.

A written single-source justification has been prepared and approved in accordance with RFO 12.201-1(c) and RFO 13.101(b).

SECTION 5 – CONTRACT TYPE AND AWARD PROCEDURES

Per RFO 5.101(c)(4)(ii), the following describes the award procedures and anticipated award date for this action, which is valued above $25,000 but at or below the Simplified Acquisition Threshold (SAT).

Contract Type: Firm-Fixed-Price (FFP) Purchase Order

Procedures: Simplified acquisition procedures per RFO 12.201-1

Anticipated Solicitation Issuance: August 13, 2026

Anticipated Award Date: On or before September 9, 2026

Documentation: Award will be documented in accordance with RFO 12.204

SECTION 6 – SOURCES SOUGHT / CAPABILITY STATEMENTS

This notice of intent is not a request for competitive quotes. A determination by the Government not to compete as a result of information received is solely within the discretion of the Government. Information received will be considered solely for the purpose of determining whether to conduct a competitive procurement.

Response Deadline: August 13, 2026, 10:00 AM Eastern Time

Submit to:
Contract Specialist: Aarati Singal, at Aarati.Singal@fda.hhs.gov and;
Contracting Officer, Sarah Hussain at Sarah.Hussain@fda.hhs.gov

Capability statements must address, at a minimum:

- Authorization status from Photothermal Spectroscopy Corp to distribute any O-PTIR technology and its associated capabilities.
- Business size under NAICS 334516.
- Relevant prior contract performance: contract numbers, agency points of contact, dollar values, and period of performance.

Responses will be used solely to assess whether a competitive procurement is practicable. The Government will consider all capability statements received by the response deadline. A determination not to compete based on information received is solely within the discretion of the Government.

Capability statements submitted in response to this notice are not offers and cannot be accepted to form a binding contract. The Government is not obligated to issue a solicitation or award a contract as a result of this notice.

No phone calls will be accepted. All inquiries must be submitted in writing to the contracting officer.

SECTION 7 – QUALIFICATION REQUIREMENTS

Per RFO 5.101(c)(4)(viii), offerors are advised that award of a contract under this requirement is conditioned on the contractor's ability to demonstrate authorization from Photothermal Spectroscopy Corp. to perform modifications, installation, commissioning, and qualification of the subject equipment. Offerors lacking such authorization will not be considered responsible sources for this requirement.