

SINGLE SOURCE CERTIFICATION

Authority is requested to make the following purchase under the provision of USF System Regulation USF4.02010(IV)(A)(2)(b) as a non-competitive purchase available from only one source. By submitting this form, department acknowledges that existing [exemptions](#) will not apply to this purchase. Single source requests exceeding \$75,000 must be signed by a Procurement Director and posted publicly for (3) business days.

DATE: 12/19/2022

ITEM(S): GCMS-TQ8040NX W/O RP+L 115V (225-45010-42)

PRICE: \$ 92,507.98 FUND #: HSC-10009-MED026-0140952

SUPPLIER ID: 0000013058 REQUISITION#: 166004314

SUPPLIER NAME: Shimadzu

FEDERAL GRANT: Y N

In your words, describe the equipment, commodity, or contractual service. Explain how these specifications are essential to the accomplishment of your work:

The requested item from Shimadzu is required in order to successfully build the liquid auto sampler and maintain the continuity of our ongoing experiments. This will be a key piece of equipment that will help with the overall efficiency of our experiments. This item has key components such as the new flow controller, one touch inlet, and an advanced GC oven.

In your own words, describe the reason(s) the item is not subject to competition from other sources and how the stated specification(s) restrict the requisition to only one supplier. Description may include unique features/compatibility/specifications/availability/delivery time frame etc. (Note: Price is not a valid reason).

Shimadzu is the sole manufacturer and distributor of this item for use with their Liquid auto sampler, which is included in a breakdown list of parts required. This item is not subject to competition due to the compatibility with other quoted part features they provide additional consumables, columns, and capacity.

In your own words, describe the due diligence conducted to validate this supplier as Single Source. Description SHOULD list all other suppliers with item(s)/service(s) with similar functions, your efforts to identify other suppliers, and why these suppliers would not qualify to submit a competitive quote.

This item is only manufactured through Shimadzu so we did not compare with other suppliers due to the overall list of items and the discount which we received. This meets all our laboratory and research needs and is innovative for efficiency. Other suppliers would not be able to provide all items at the discounted rate that will be satisfactory to laboratory needs. The discount is applied to almost all items in addition to this main component.

Brisanne Matier 12/21/2022

START 12/21/2022 END 12/27/2022

Approved By (Procurement) DATE

PUBLIC POSTING DATES

Authority: USF4.02010(IV)(A)(2)(b)

Last Modified: 05/10/2021

OFFICE OF THE UNIVERSITY CONTROLLER, PROCUREMENT SERVICES

A couple of vendors were evaluated, but the Shimadzu GCMS-TQ8040 NX was found to be the only one that will work in our microbiomes lab for several reasons.

Hardware

- Shimadzu is the only manufacturer who manufactures their instrument in the US and is part of the Buy American Act.
- The Shimadzu GCMS is the only one that can scan at 20000 amu/sec *without losing sensitivity* to both help us keep up with sample load and also have high confidence in our results. This also allows us to set up successful scan/SIM or scan/MRM methods to look for known samples and interrogate samples for novel metabolites in the same run and without sacrificing sensitivity.
- The GCMS has 2 filaments, so it automatically switches to the second filament to maximize uptime.
- The GCMS has pre-quads to protect the main quadrupoles from our dirty samples.
- Helium is very expensive and even being rationed. The Shimadzu GCMS allows us to switch to hydrogen carrier gas with no modification in the event we can no longer secure Helium in the future.
- The GCMS-TQ8050 NX offers a Hydrogen Sensor that will shut down the instrument in the event of a Hydrogen leak (if we move to hydrogen carrier) to keep our staff safe.
- The system has a dual differential turbopump and an upgraded RV-3 rough pump for enhanced sensitivity and greater uptime after maintenance.
- Shimadzu's GCMS has a modern, color touch screen interface and Click-Tek columns to help my users easily swap columns when needed. Our students can even access the software remotely to check their batches.

Software

- The datafiles are project-driven. This allows us to get easy support from Shimadzu because the datafile includes all method, tune, and batch information for easier troubleshooting.
- Shimadzu's system includes the latest version of the NIST/Wiley libraries.
- **Shimadzu is the only vendor with a comprehensive SMART Metabolites Database with nearly 500 compounds identified in blood, urine, and serum matrices. The SMART database comes with all MRM, SIM, Scan, Scan/MRM, SIM/MRM modes of method parameters including collision energies to make our method development easier. To increase S:N, the system automatically builds the MRM tables with the instrument duty cycle in mind.**
- **Shimadzu's software will also allow us to create our own library for any new metabolites we might find, and we can search on 5 different libraries.**
- **Since our samples are biological, we are bound to have complicated chromatograms with many peaks. Shimadzu utilizes retention indices for greater confirmation in library results. And, when we clip the front of our column, Shimadzu's system can use an n-alkane mixture to automatically adjust all peaks/retention time windows instead of just at a single spot on the chromatogram, saving us a lot of time to focus on other tasks.**

Support

- Shimadzu is the only manufacturer who provides free onsite training for as long as all our users need to feel comfortable using the instrument. This training can continue even beyond the warranty period and even if we do not have a service contract or after the 1-year warranty.
- Shimadzu also is the only vendor who will help us with current FAME projects as well as bile acids and future intestinal metabolites of interest.
- Shimadzu does not charge anything for phone or onsite training or technical support even beyond the warranty period and even if we do not carry a service contract.