

A Q&A

Global Lab Manager Survey and the Ultivo Triple Quadrupole LC/MS



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A global survey of laboratory managers was conducted by Agilent Technologies to support their design of innovative instruments that address the key “pain points” of today’s mass spec laboratories.

What key challenges do mass spectrometry laboratories face today? *LCGC* recently sat down with Jim Yano, the vice president of marketing for Agilent’s mass spectrometry division, to talk about a survey of laboratory managers recently conducted by Agilent Technologies to help them answer that very question. Yano discusses how the Ultivo triple-quadrupole mass spectrometer system addresses the pain points revealed by the survey and delivers improved business results.

LCGC: Agilent recently commissioned a survey of laboratory managers. Why was it important to Agilent to conduct this survey?

Yano: Agilent listens to customers in the daily interactions of our field sales and service staff, as well as through ongoing industry research. To remain a trusted partner, we know that we need to focus on addressing our customers’ greatest challenges. Through dialogue, we better understand lab managers’ pain points and the effect these issues have at an operational, scientific, and financial level. We then translate these challenges into solutions that directly address these pain points.

Agilent conducts customer surveys on a regular basis. This most recent lab manager survey was an independent survey carried out by Frost & Sullivan that extended beyond just Agilent customers, asking 700 laboratory managers about their most pressing lab concerns.

LCGC: When was the survey carried out?

Yano: This lab manager survey was conducted between February and May 2017 and covered a variety of types of labs throughout three regions: United States, Europe, and China.

LCGC: You launched the survey at the 65th American Society for Mass Spectrometry (ASMS) Conference on Mass Spectrometry this year. Why did you choose this venue?

Yano: Agilent has showcased our latest technology at the ASMS Conference for many years. This year, we exhibited three LC/MS products released earlier in 2017, and introduced three new products, including our latest LC triple-quad mass spectrometer, Ultivo. Each product was designed based on customer feedback. We presented the lab manager survey results at ASMS to substantiate that these innovations are on target with our customers’ requirements.

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LCGC: You reported that about half of the labs surveyed are under pressure to increase productivity. Can you give me an example of what Agilent is doing to address the issue of productivity pressures?

Yano: Fifty-eight percent of the respondents told us that in the next 18 months, their key objective is to ensure higher sample throughput. Designing instruments that are easier to operate is essential to increasing productivity, and this was critical in our design of Ultivo.

Customers have told us, “Don’t try to make our lab personnel mass spectrometrists. They are system operators.” We took this feedback seriously and designed an instrument that minimizes operator intervention. The goal of Ultivo’s innovative hardware was operator intervention that is fast, error-free, and infrequent. Every mechanical, electrical, and vacuum component was triple-tested to confirm maximum reliability, which is what Agilent is known for, and what our customers expect. Diagnostic tools have been enhanced to alert the operator to pending maintenance, and we’ve reduced maintenance to a few simple steps that a non-expert can complete quickly.

LCGC: Productivity is a major challenge and something that many vendors address by providing innovative technology solutions. Can you describe the innovative aspects of Ultivo?

Yano: Ultivo incorporates innovative hardware and software improvements such as Ultivo’s small footprint, which is 70% smaller than previous instruments. This compact size means that labs can increase productivity without having to increase lab space to accommodate more instruments. Lab managers will also see a strong price performance per square foot, leading to reduced operating costs.

Another pain point for many lab managers is ensuring that the analysis is correct the first time, thus reducing the need to rerun analyses. Ultivo addresses this issue through its intuitive operational design that follows the operator’s workflow and minimizes the potential for errors, ensuring that users obtain correct results the first time. The results provided by Ultivo are highly reproducible and Ultivo’s smarter and more self-aware diagnostics also contribute to ensuring optimal uptime.

We also heard from our customers that data analysis is a challenge, so we developed Quant-My-Way for Agilent’s MassHunter software. Quant-My-Way is a user-defined interface that provides quicker and more efficient data analysis.

LCGC: Providing new technology is one solution. Is there anything else that lab managers need to improve their productivity?

Yano: Seventy-three percent of lab managers surveyed told us that instrument maintenance and downtime rank among their top five pain points. To ensure even greater efficiency, Agilent develops consumables and columns that contribute to optimal instrument operation with minimal maintenance, which reduces downtime, as they integrate seamlessly into the instrument workflow.

We maintain a highly skilled support organization, including service and application personnel who focus on ensuring our customers’ success in their labs. Because customer service is so important to us, we launched Agilent CrossLab. CrossLab is a team dedicated to minimizing our customers’ downtime. They provide industry-leading support and have the capacity to mobilize experts to help our customers whenever the need arises.

LCGC: Were any of the survey findings surprising?

Yano: The survey supported our current thinking, and helped us understand more specifically how lab managers rank these challenges in terms of importance and the impact they have on their labs. One illuminating finding was managers’ concern about lab space, which is why we develop instruments such as Ultivo.

What was more revealing was the scope and scale of the issue, which isn’t only about overcrowding and inconvenience. One in five lab managers considers lab space to be a challenge that directly affects their lab’s performance. The survey indicated that 75% of lab managers believe that space-saving instrument design can help improve laboratory performance.

LCGC: What does Agilent plan to do with the survey findings?

Yano: The survey has prompted renewed discussions internally about customer requirements, and how Agilent’s continued enhancement to our products and services to help our customers meet the challenges they face today and in the future.

The survey also gave us regional feedback, which helps us understand the unique needs of particular market segments that Agilent serves. We will continue to share these results over time, and look at new ways to improve our customers’ experiences.