



Intelligence that Drives Performance

Agilent ASMS Press Conference | June 3, 2024

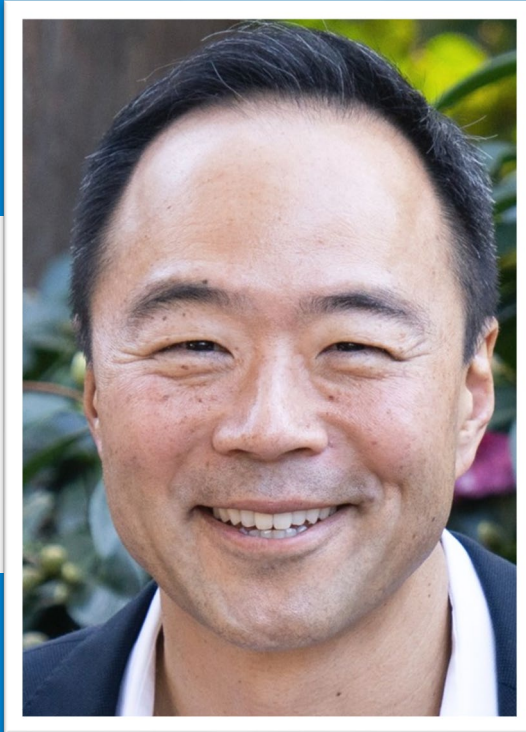
Safe Harbor

This presentation contains forward-looking statements (including, without limitation, information and future guidance on the company's goals, priorities, growth opportunities, customer service and innovation plans, new product introductions, financial condition and considerations, and the continued strengths and expected growth of the markets the company sells into, operations) that involve risks and uncertainties that could cause results of Agilent to differ materially from management's current expectations. The words "anticipate," "plan," "estimate," "expect," "intend," "will," "should" "forecast" "project" and similar expressions, as they relate to the company, are intended to identify forward-looking statements.

In addition, other risks that the company faces in running its operations include the ability to execute successfully through business cycles; the ability to successfully adapt its cost structures to continuing changes in business conditions; ongoing competitive, pricing and gross margin pressures; the risk that our strategic and cost-cutting initiatives will impair our ability to develop products and remain competitive and to operate effectively; the impact of geopolitical uncertainties on our markets and our ability to conduct business; the impact of currency exchange rates on our financial results; the ability to improve asset performance to adapt to changes in demand; the ability to successfully introduce new products at the right time, price and mix, and other risks detailed in the company's filings with the Securities and Exchange Commission, including our annual report on Form 10-K for the year ended October 31, 2023.

The company assumes no obligation to update the information in these presentations. This presentation include non-GAAP measures. Non-GAAP measures exclude primarily the impacts of asset impairments, amortization of intangibles, transformational initiatives, acquisition and integration costs, change in fair value of contingent consideration, loss on extinguishment of debt, business exit and divestiture costs, pension settlement loss and net gain on equity securities. We also exclude any tax benefits that are not directly related to ongoing operations, and which are either isolated or are not expected to occur again with any regularity or predictability. With respect to the company's guidance, most of these excluded amounts pertain to events that have not yet occurred and are not currently possible to estimate with a reasonable degree of accuracy. Accordingly, no reconciliation to GAAP amounts has been provided.

Presenters



Ken Suzuki

Vice President & General Manager
Mass Spectrometry Division
Agilent Technologies



Jennifer Gushue

Associate Vice President
Mass Spectrometry Marketing
Agilent Technologies

Ken Suzuki

Vice President and General Manager

Mass Spectrometry Division

Agilent Technologies



Our **ESG goals** and those of our **customers** are interlinked

Agilent believes that sustainability is a critical part of our mission, and our company's sustainability goals and those of our customers are interlinked.



Products

Improving sustainability of our products and services to empower our customers to also achieve their sustainability goals.



People

We are a group of diverse, passionate, and talented people, working with our customers, suppliers, investors and media partners to advance sustainable science.

Achieving
Net Zero

Planet

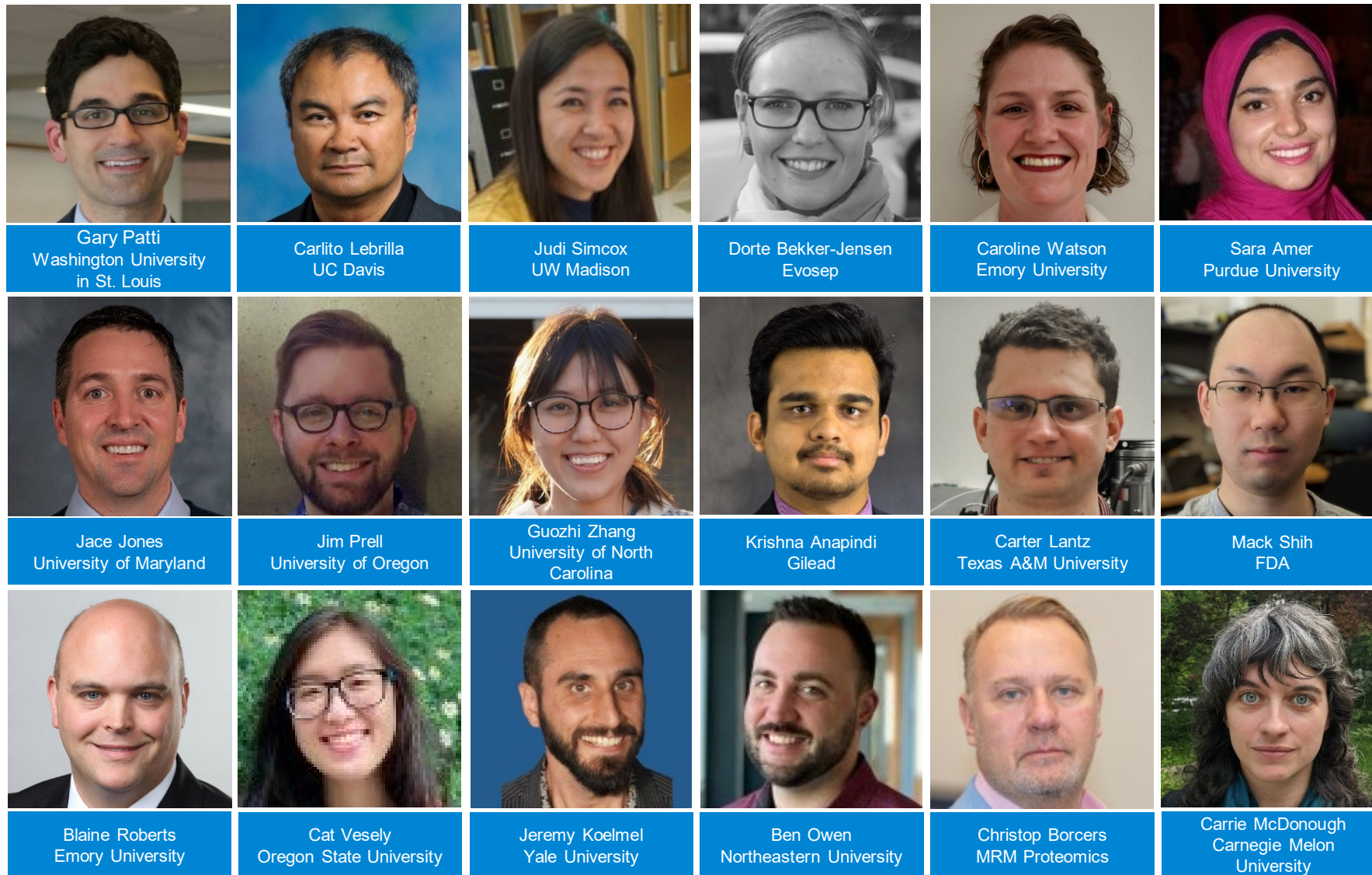
Protecting natural resources is essential to human health. We aim to accomplish this by reducing the environmental impact of our operations and our products.



Prosperity

Our fundamental focus is to create broad prosperity. We aim to enable better health and work with our customers and partners to create shared prosperity for all.

Our customers are our inspiration

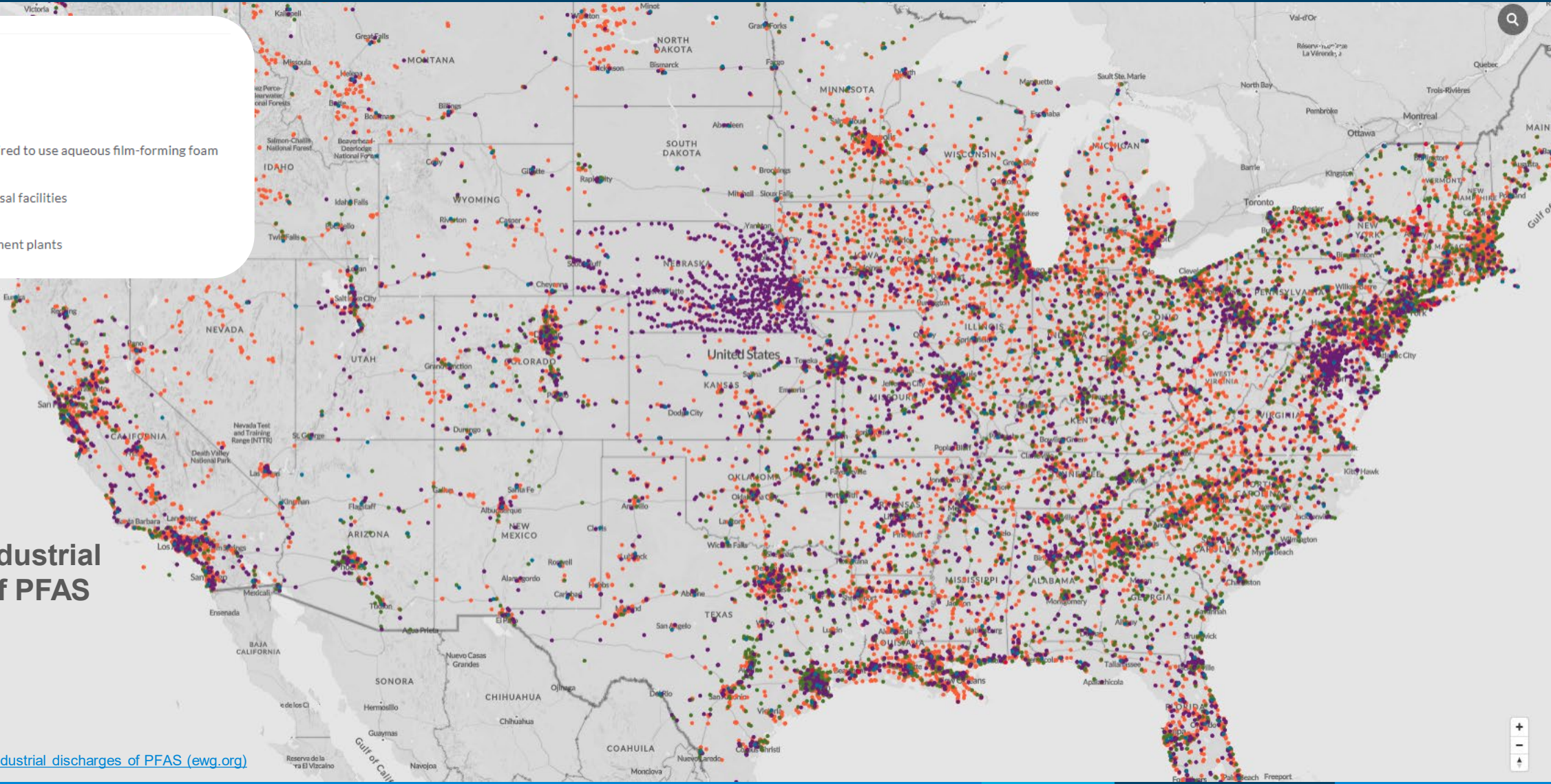


Our customers are at the heart of what we do, driving us to innovate.

Their needs, ideas, and feedback inspire us to craft better solutions to provide exceptional results.

41,828 industrial / municipal sites known to produce, use, suspected of using, or a suspected source of PFAS

- Known users of PFAS
- Suspected users of PFAS
- Airports previously required to use aqueous film-forming foam
- Landfills and waste disposal facilities
- Sewage and waste treatment plants



Suspected Industrial Discharges of PFAS in the U.S.

(February 5, 2024)

[Interactive Map: Suspected industrial discharges of PFAS \(ewg.org\)](https://www.ewg.org)

Most sensitive, most robust, driven by intelligence



At Granite State Analytical we run drinking water and have first-hand experience with the increased sensitivity of the 6495D.

The same acquisition method needs only half the injected sample volume to produce the same, and sometimes even better results than previous models.

John H Lyons,
President, Granite State Analytical



Commitment to intelligent instruments

“ The Revident Q-TOF has surpassed expectations, delivering outstanding performance. Paired with the Infinity II HPLC, this instrument has enhanced our understanding of various process reactions. The workflows are straight forward for my students to navigate, yielding high-quality data.

Additionally, the service and support for this instrument have been the best I've experienced in many years ”

Bill Holmes,

Director of Process Analytics & Process Chemistry.

University of Louisiana



Gary Patti

Associate Professor

Department of Chemistry in Arts & Sciences

Washington University in St. Louis

 Washington University in St. Louis

Jennifer Gushue

Associate Vice President
Mass Spectrometry Marketing
Agilent Technologies



10-year anniversary of 7010A GC/TQ launch

100,000,000

injections and counting!

Agilent has a legacy of delivering performance
with longevity and reliability

“ In our laboratory, **sensitivity** and instrument **uptime** are critical to maintaining productivity and **delivering results** to our **customers**. Our 7010 GC/TQ systems not only fulfill these requirements but **exceed** them and deliver **exceptional data** every time.”



Dr. Agustin Pierri,
Technical Director
Weck Laboratories, Inc.

Beyond ALL Limits



7010D GC/TQ

Unparalleled performance and uptime



Intelligence that Drives Performance



Intelligence that **Drives Performance**



Intelligence that **Drives Performance**

“One of the really exciting aspects of the intelligence ... if something happens it can **send a message** that there is problem”

Gary Patti
Washington University

- ✓ **Uptime**
- ✓ **Performance**
- ✓ **Data**

“There’s a lot of really interesting things that [the intelligence] can do that **alleviates that burden**”

Gary Patti
Washington University

Intelligence that **Drives Performance**

“The intelligence of our Agilent GC/TQ system has played a **major role** in **improving** our **productivity** and **data quality**, especially **SWARM** Autotune. **It’s very fast!**”



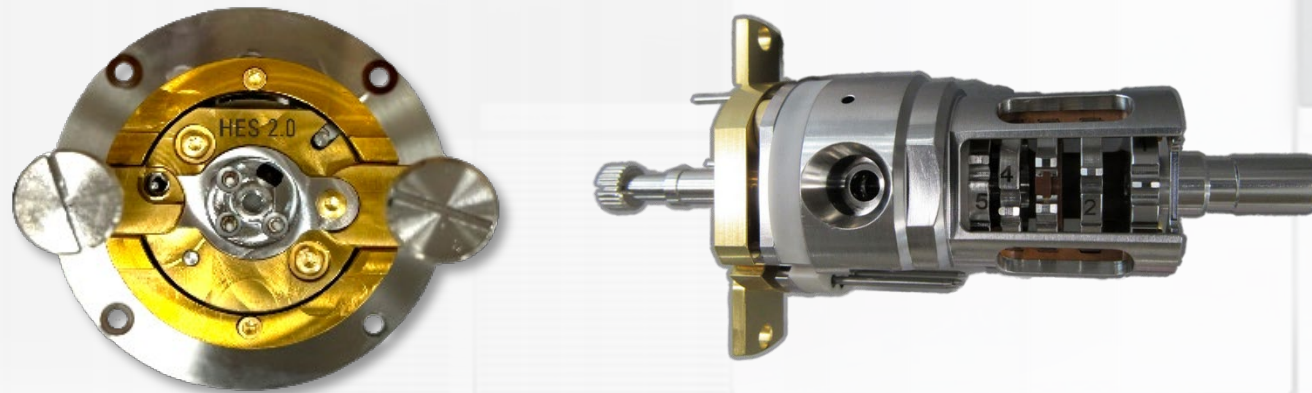
TESTEX®

Dr. Andreas Kapaklis
Department Team Leader,
TESTEX AG

Designed with our **customers in mind**

Sensitivity and robustness are critical

- **Industry-leading** limits of detection, attogram-level sensitivity
- **Unparalleled** uptime and excellent stability

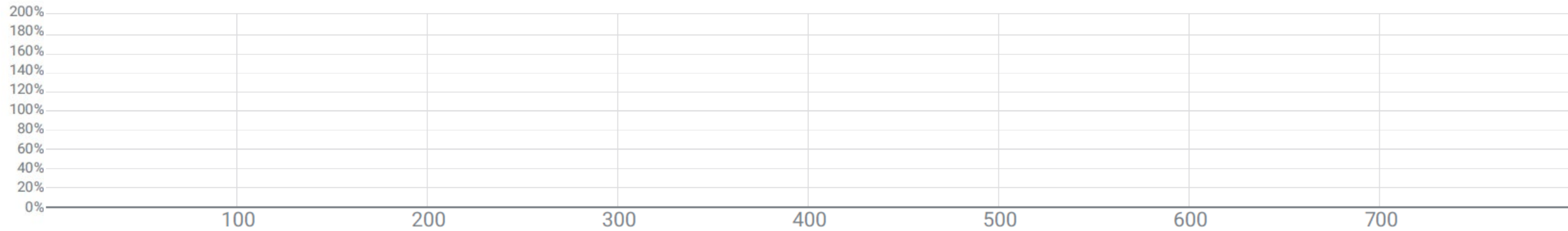


2nd Generation High Efficiency Source (HES 2.0)

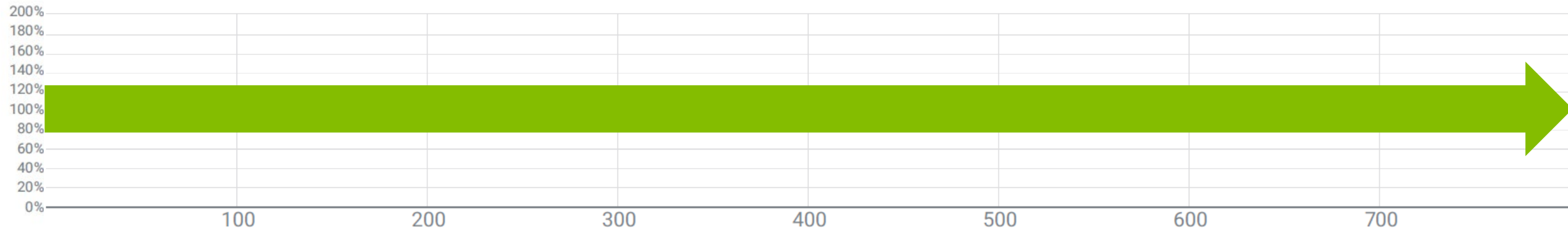
Sample matrices are **not all the same**



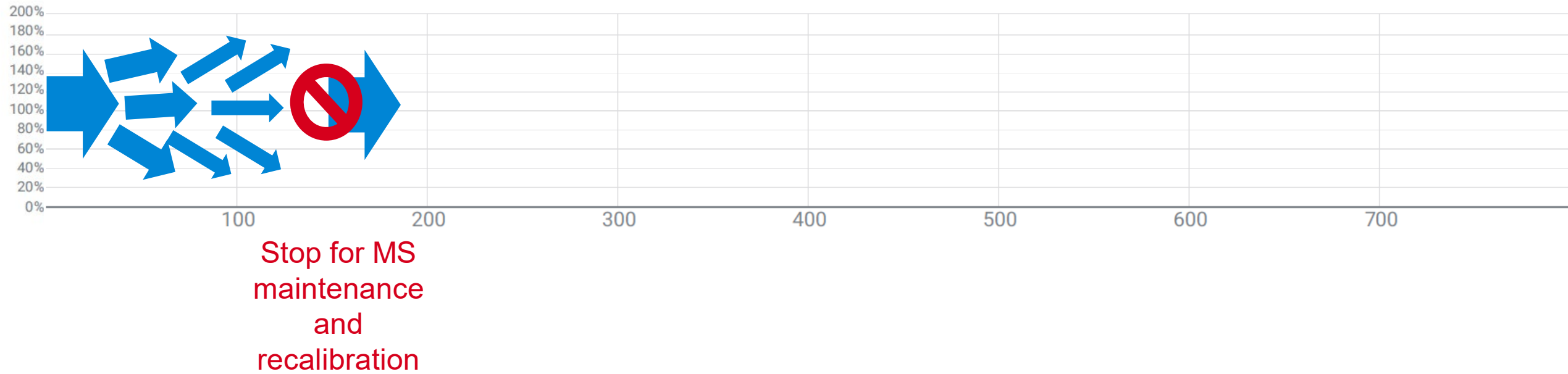
Performance in **challenging** matrices



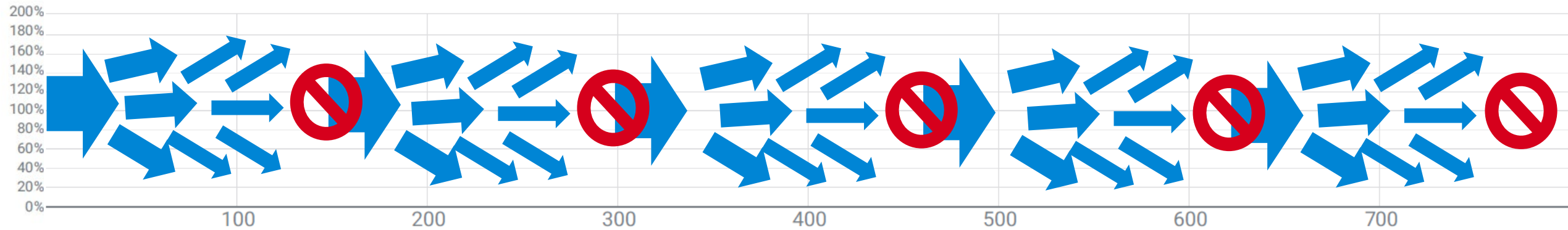
Performance in **challenging** matrices



Performance in **challenging** matrices

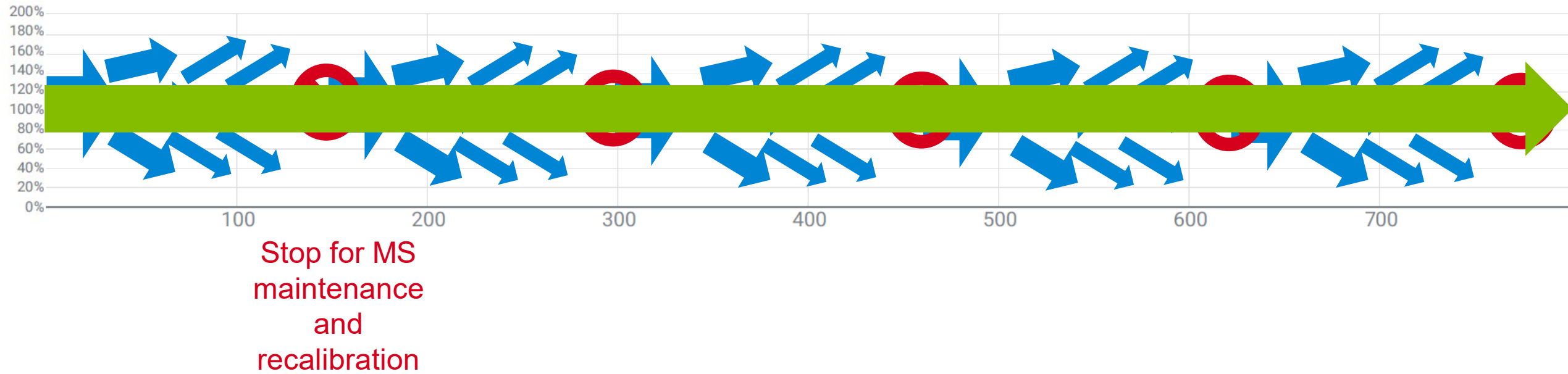


Performance in **challenging** matrices

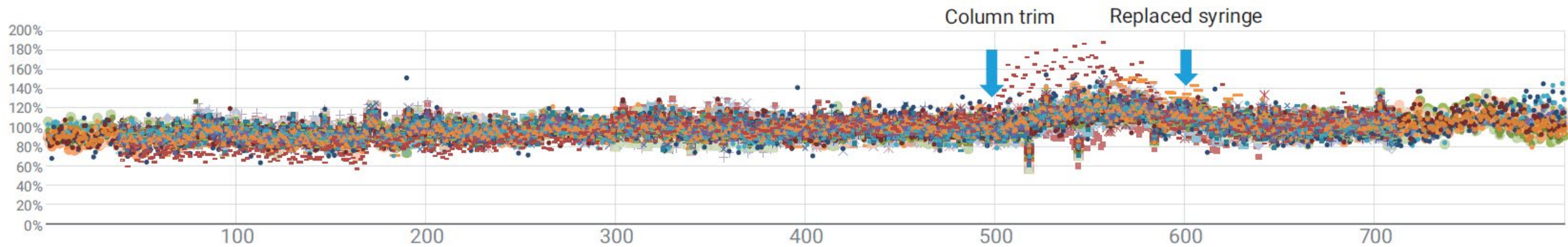


Stop for MS
maintenance
and
recalibration

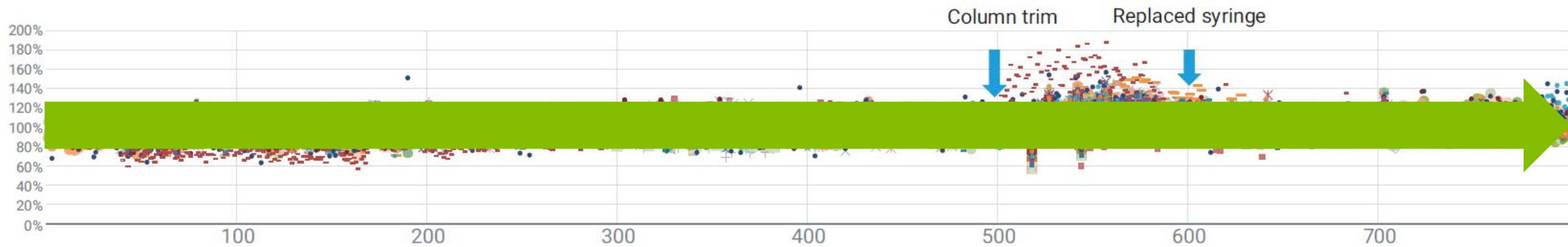
Performance in **challenging** matrices



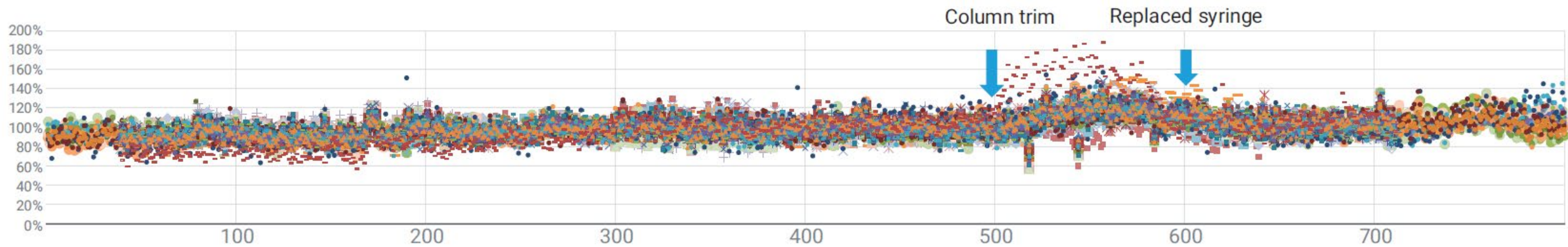
Performance in **challenging** matrices



Performance in **challenging** matrices

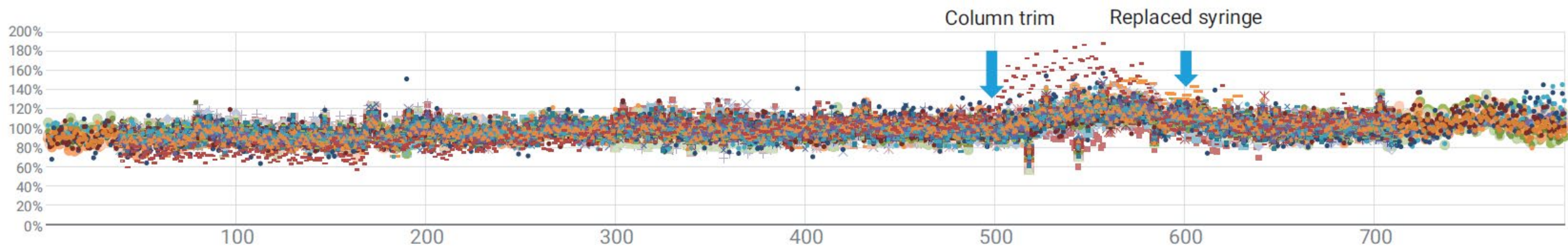


Performance in **challenging** matrices



2 ppb!

Performance in **challenging** matrices



2 ppb!

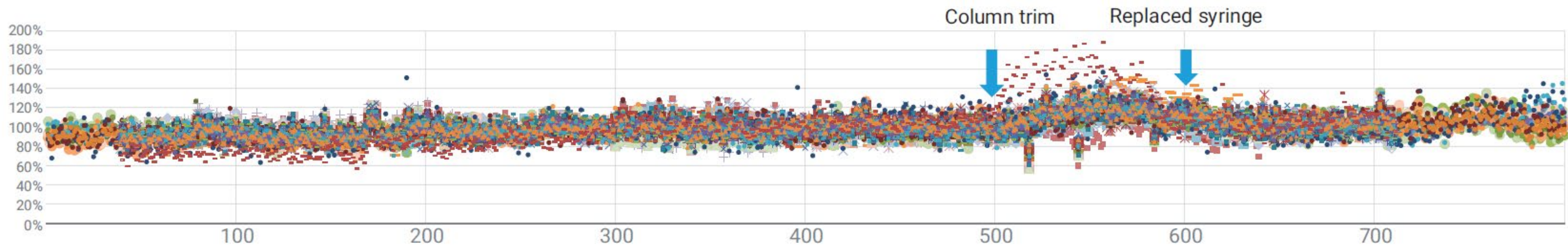
Maximum Residue Level (MRL) 10 ppb – 100 ppm

The **dirty dozen**

1. Strawberries
2. Spinach
3. Kale, collard, and mustard greens
4. Grapes
5. Peaches
6. Pears
7. Nectarines
8. Apples
9. Bell and hot peppers
10. Cherries
11. Blueberries
12. Green Beans

<https://www.ewg.org/foodnews/dirty-dozen.php>

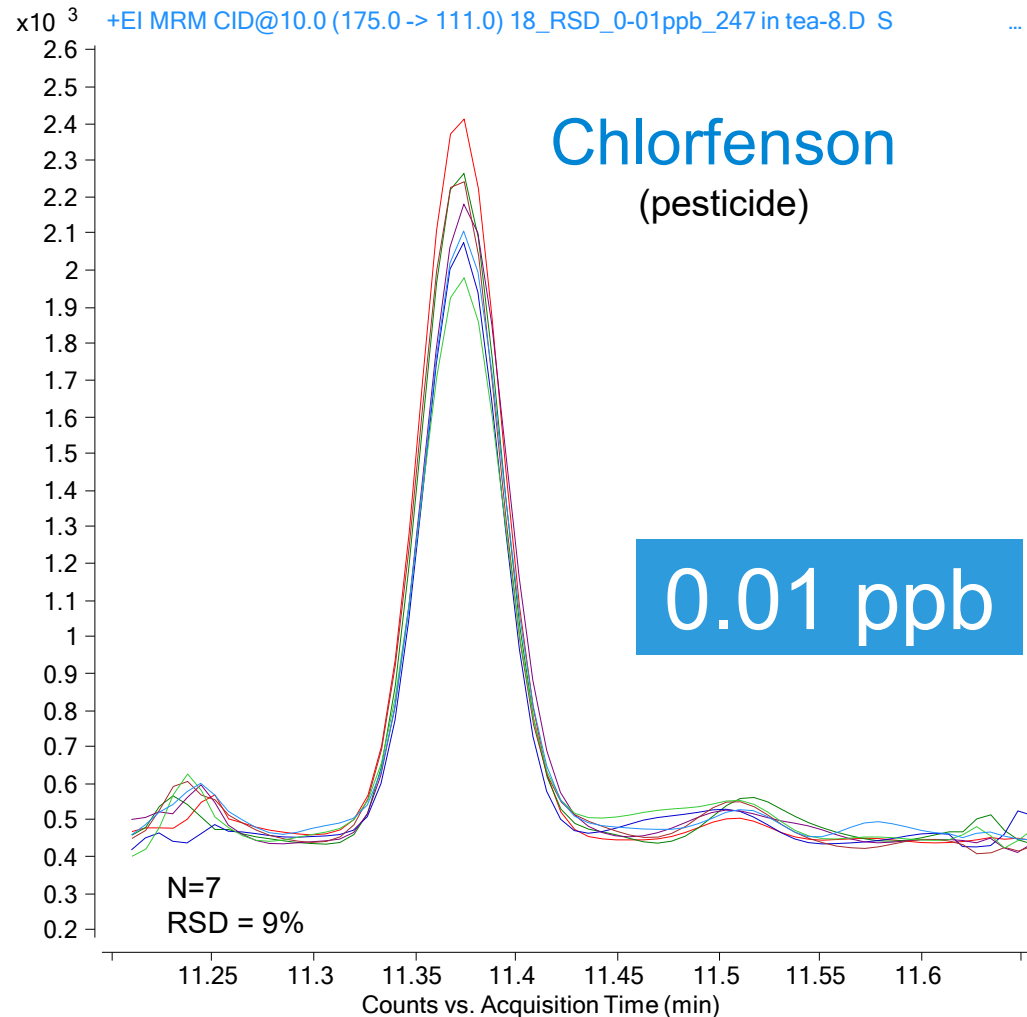
Performance in **challenging** matrices



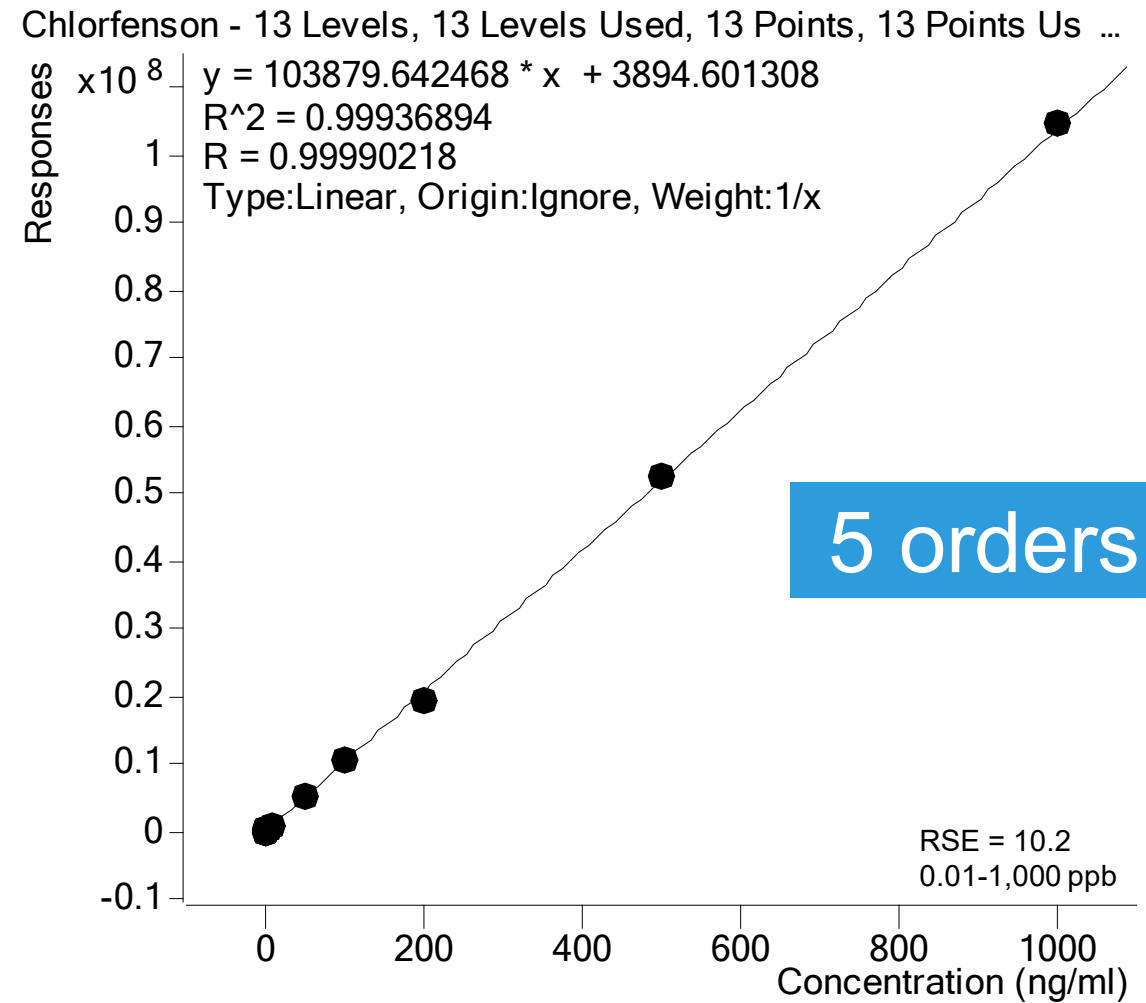
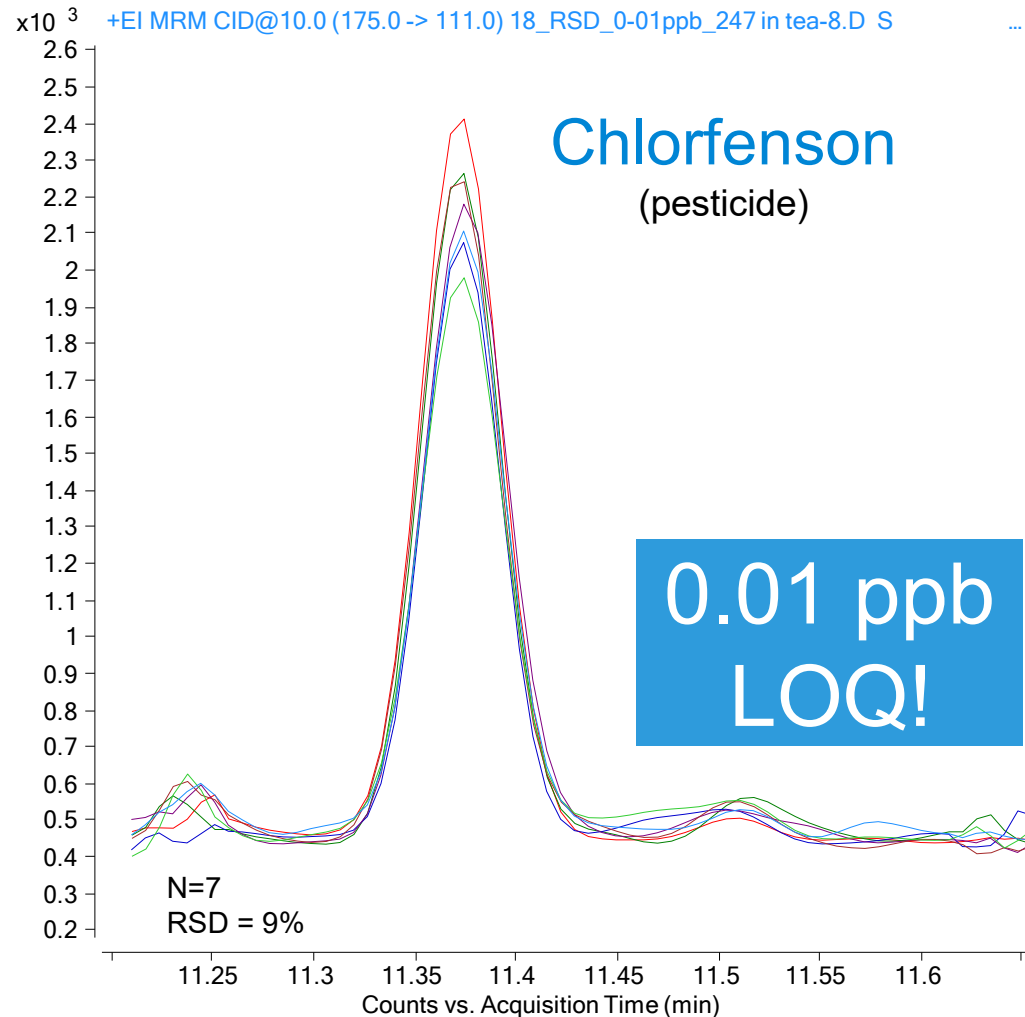
2 ppb!

Maximum Residue Level (MRL) 10 ppb – 100 ppm

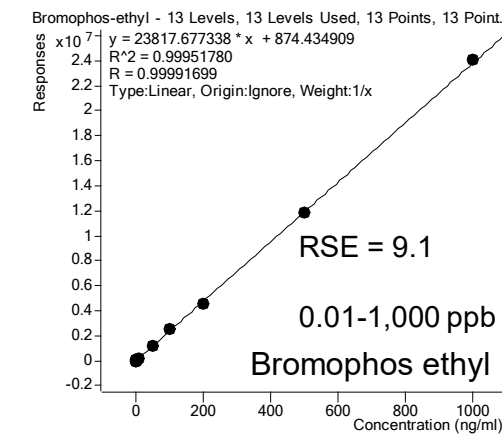
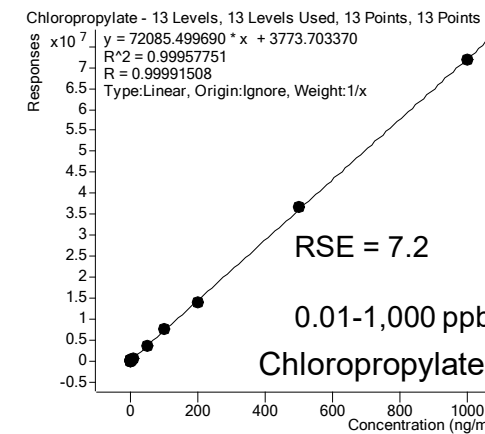
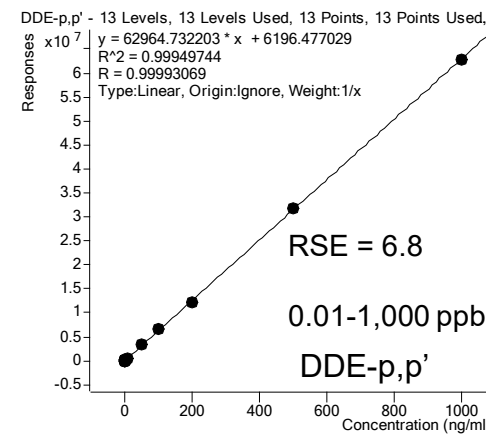
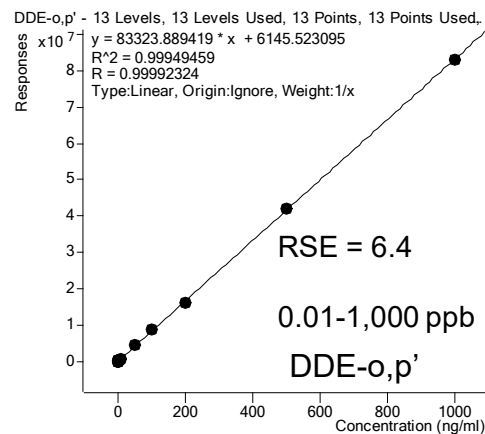
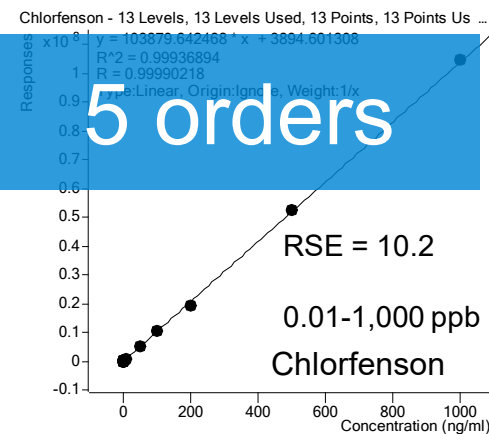
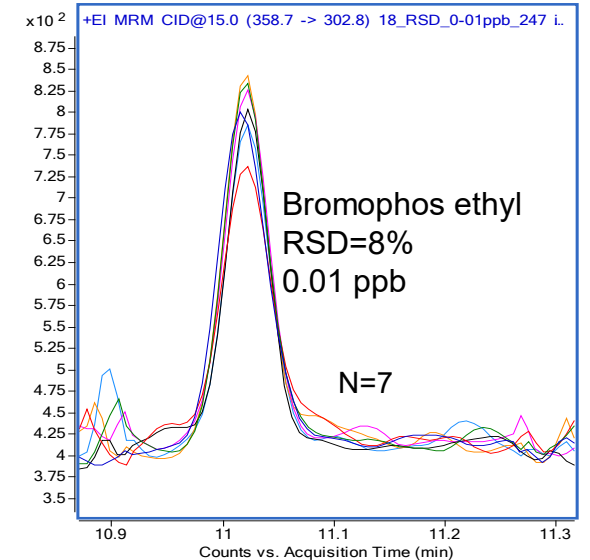
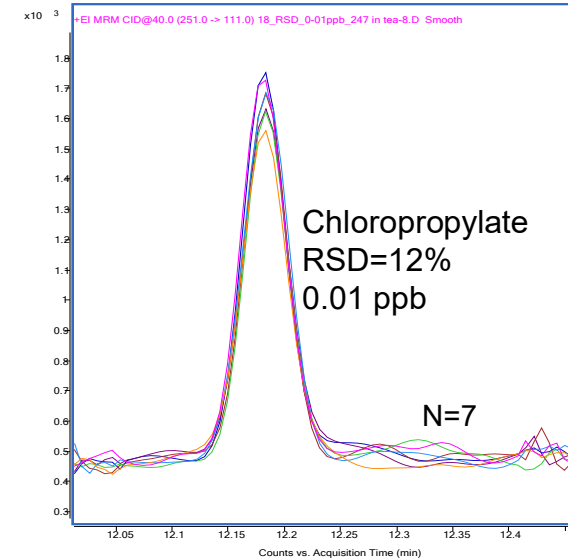
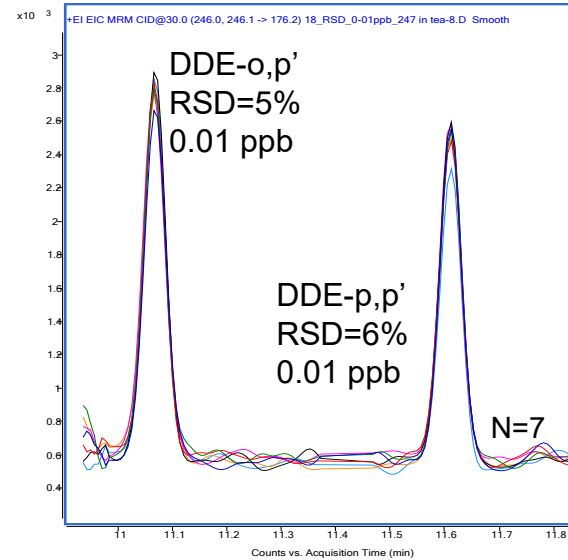
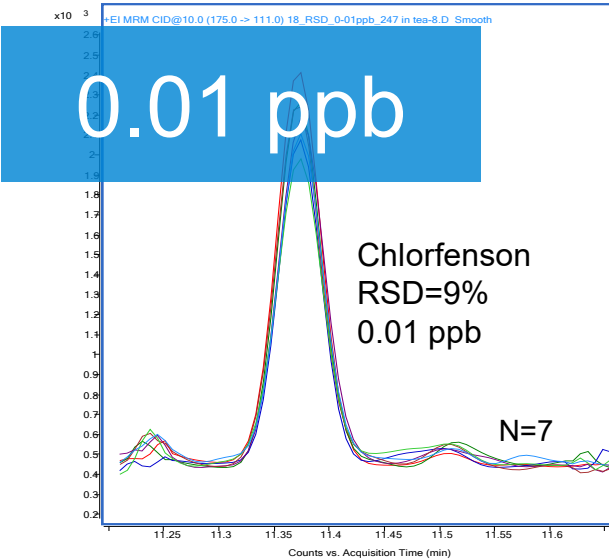
Ultimate sensitivity, linearity, and so much more...



Ultimate sensitivity, linearity, and so much more...



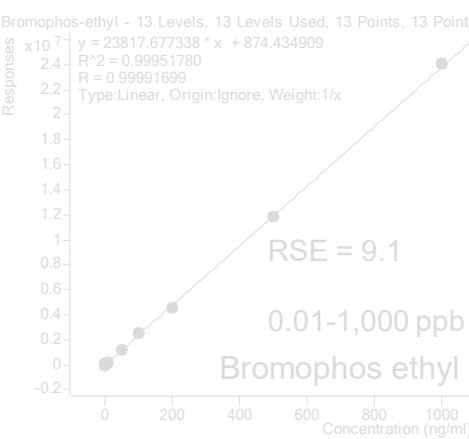
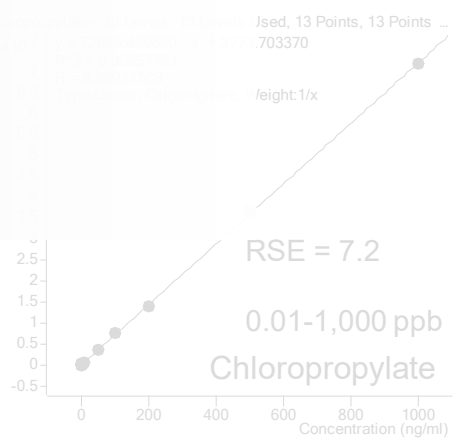
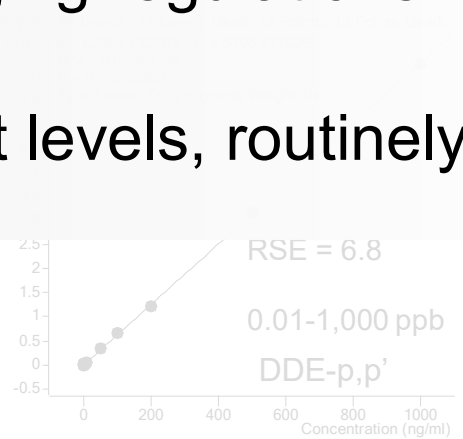
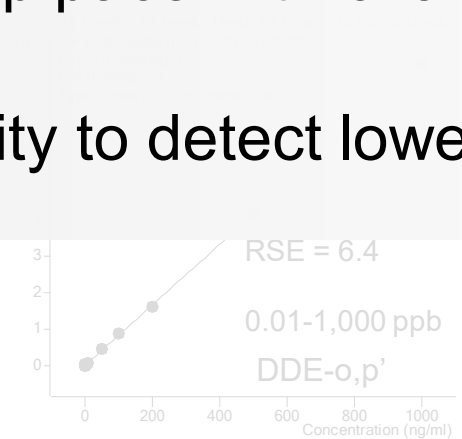
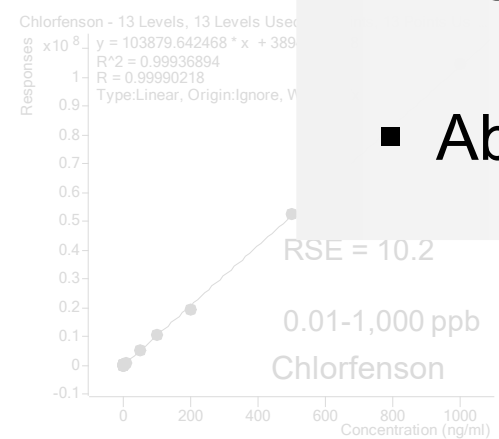
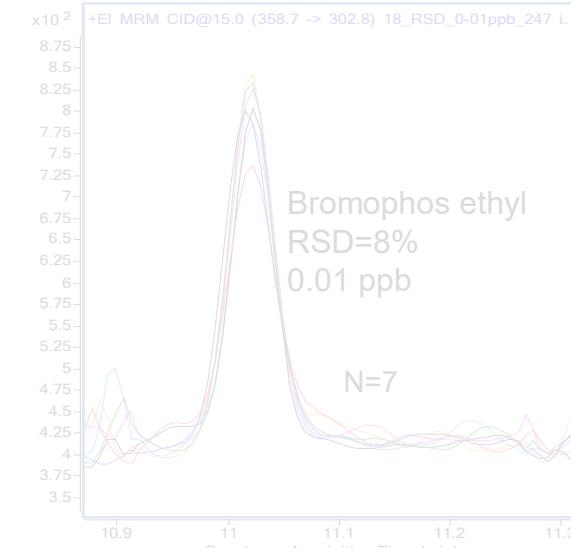
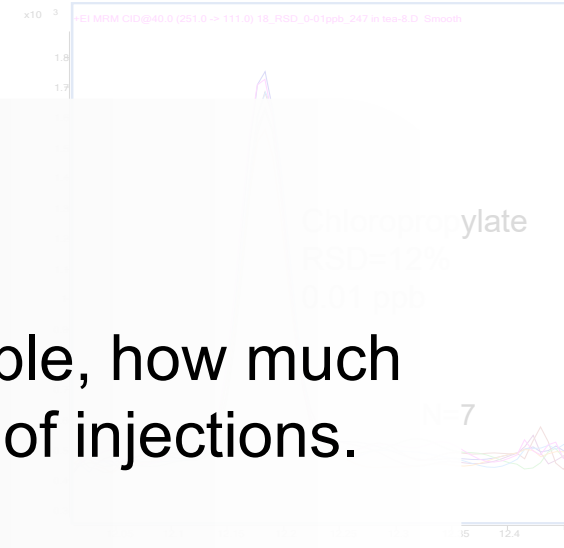
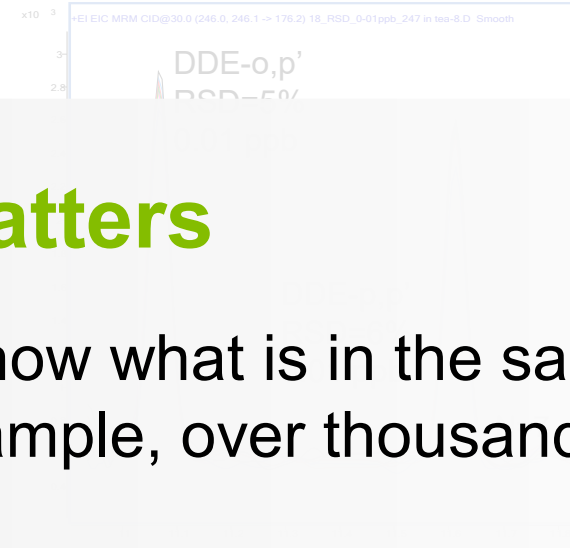
Ultimate sensitivity, linearity, and so much more...



Ultimate sensitivity, linearity, and so much more...

Why it matters

- Need to know what is in the sample, how much is in the sample, over thousands of injections.
- Keep pace with changing regulations
- Ability to detect lowest levels, routinely

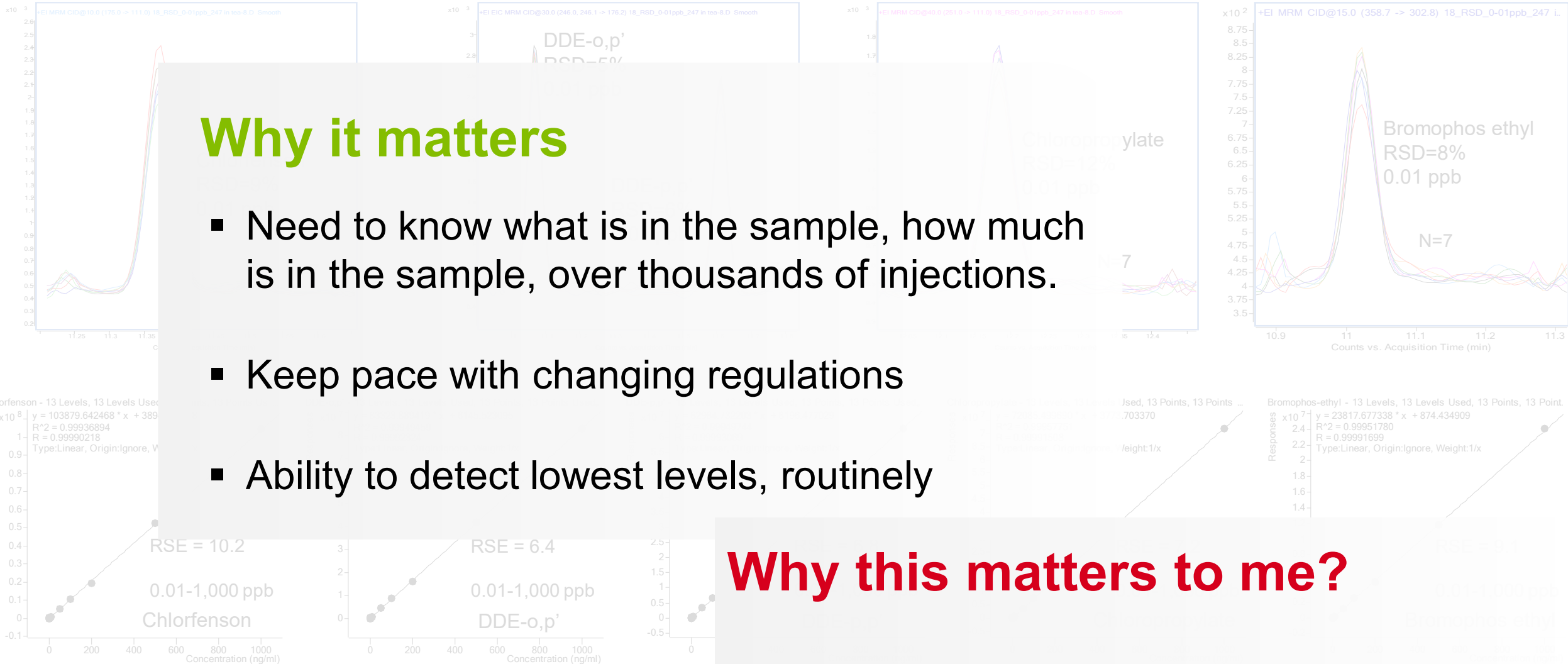


Ultimate **sensitivity, linearity**, and so much **more...**

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Why this matters to me?



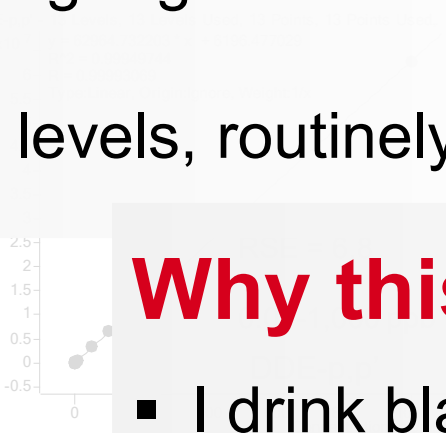
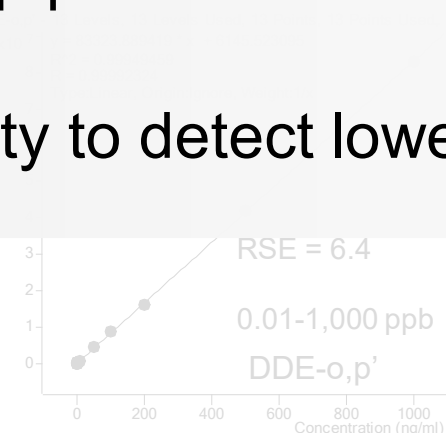
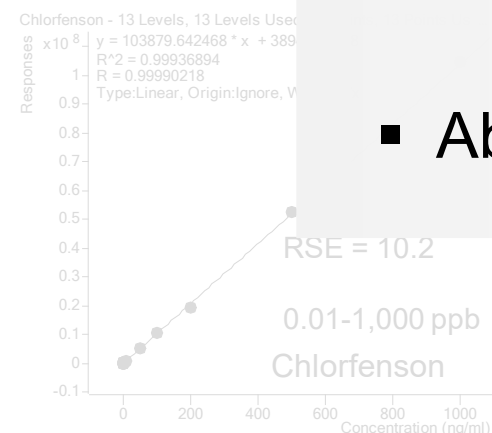
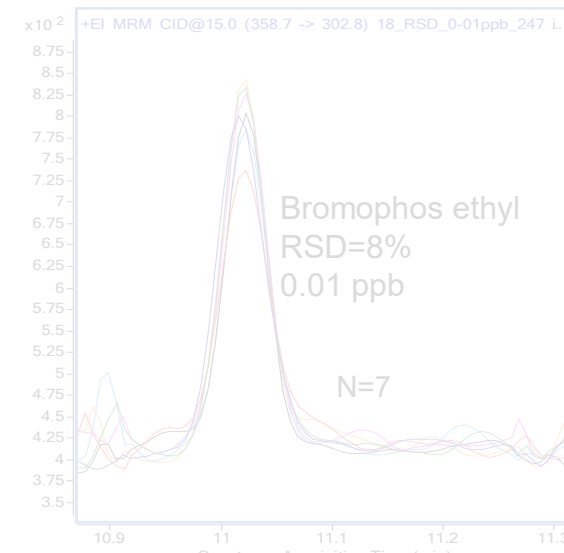
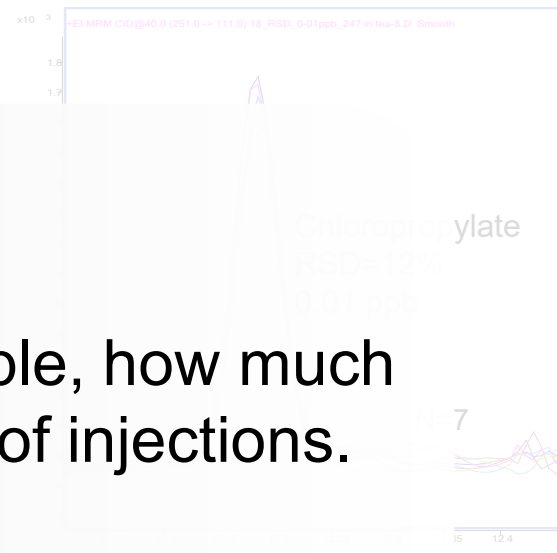
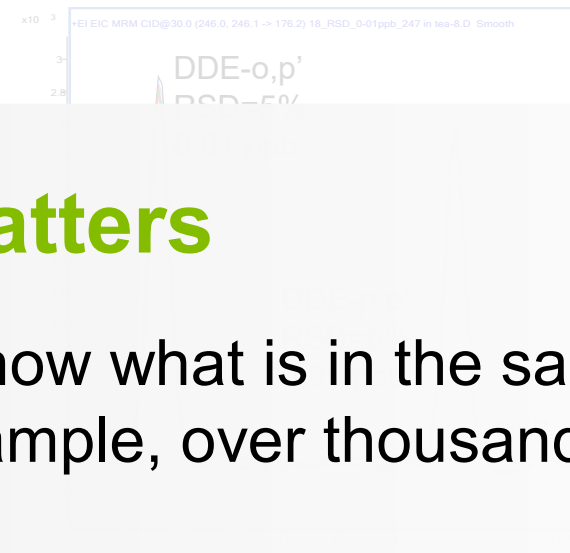
Ultimate **sensitivity, linearity**, and so much **more...**

Why it matters

- Need to know what is in the sample, how much is in the sample, over thousands of injections.
- Keep pace with changing regulations
- Ability to detect lowest levels, routinely

Why this matters to me?

- I drink black tea



Addressing **customer** challenges



“Over a period of eight months, we carried out around **3600 measurements** of QuEChERS extracts.

The HES 2.0 exhibited **excellent performance** and **robustness** in terms of **intensity** and **signal resolution** over the entire period”

Athanasios Nitsopoulos
CEO, Labor Friedle GmbH



Boundary-stretching performance



“After more than **5000 injections**, the 7010D GC/TQ system continues to demonstrate **exceptional sensitivity** and maintains its **robust performance** analyzing complex matrices like spices and dry herbs”



Mari Carmen Saura
Technical Director
Laboratorio Químico Microbiológico (LQM)



Boundary-stretching performance

6200 injections!

“After more than ~~5000 injections~~, the 7010D GC/TQ system continues to demonstrate **exceptional sensitivity** and maintains its **robust performance** analyzing complex matrices like spices and dry herbs”



Mari Carmen Saura
Technical Director
Laboratorio Químico Microbiológico (LQM)



Beyond ALL Limits

Innovation that Drives Breakthroughs





Biologics Remain the Fastest Growing Therapeutics





Biologics Remain the Fastest Growing Therapeutics

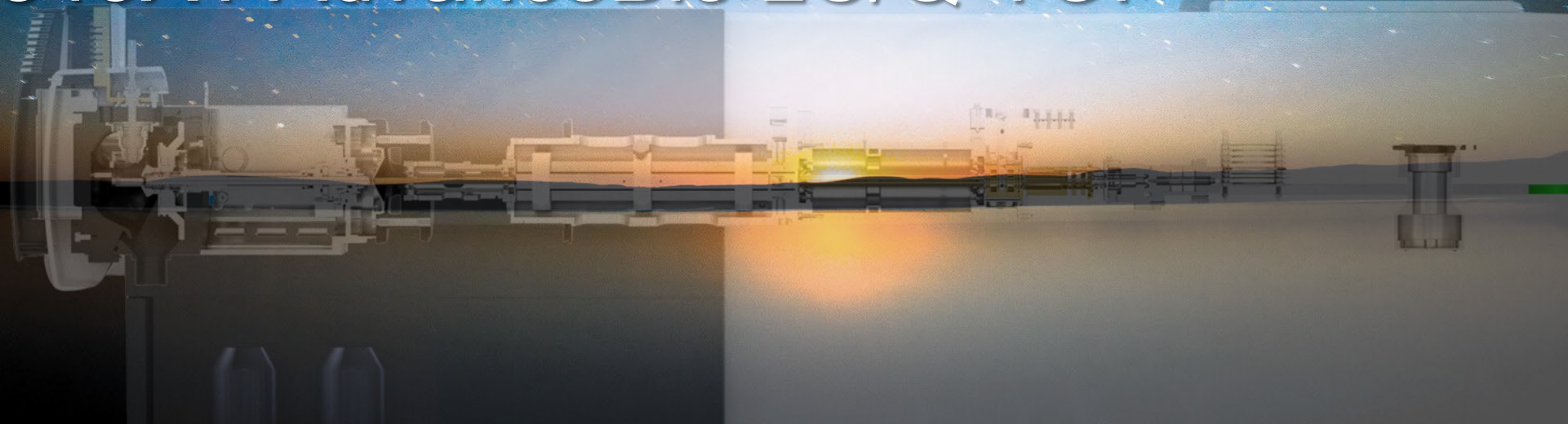
Need for:

- Better tools for characterizing modalities
- More comprehensive information
- More rapid results
- Make decisions more quickly

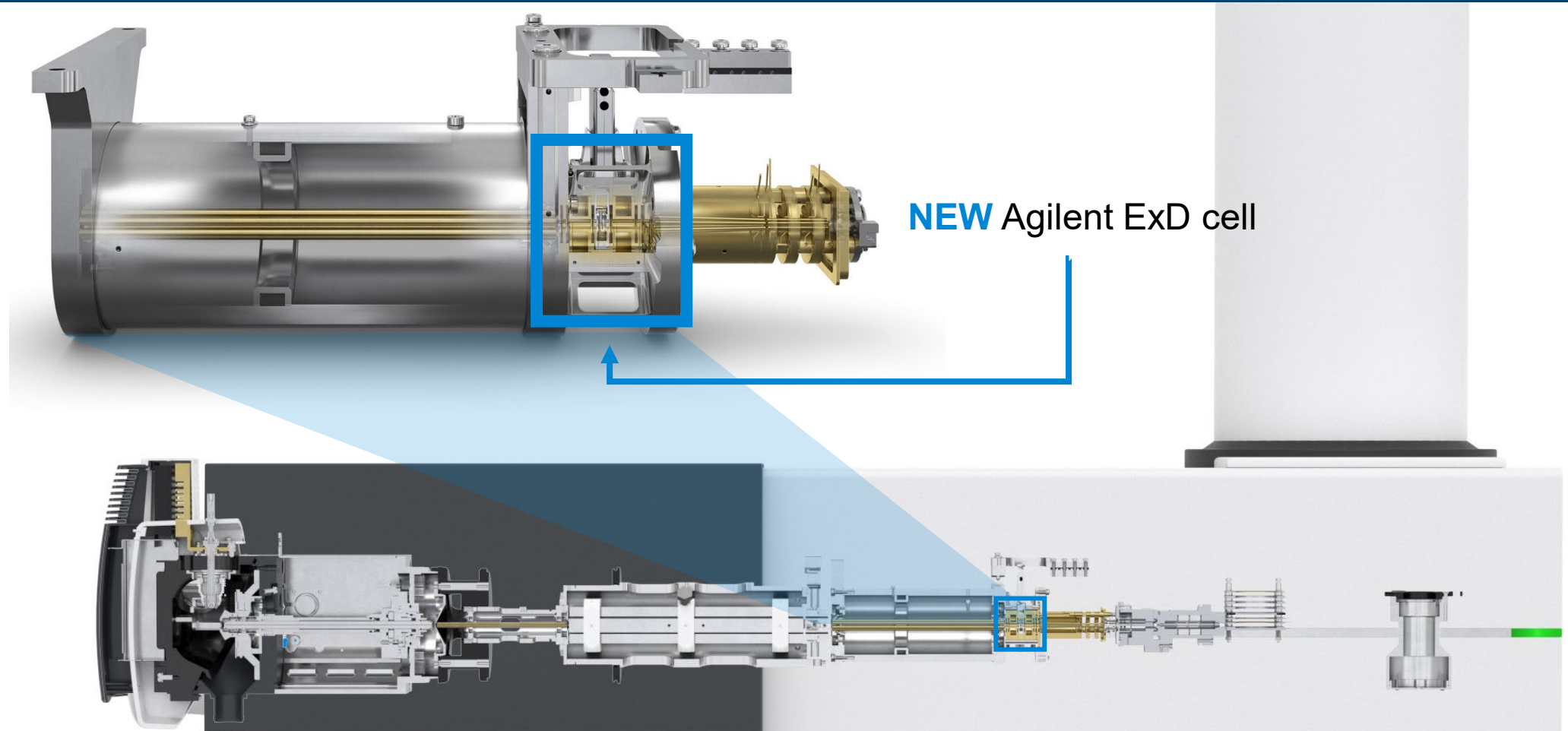


Agilent ExD Cell

for 6545XT AdvanceBio LC/Q-TOF



Addressing the **most challenging** biological questions

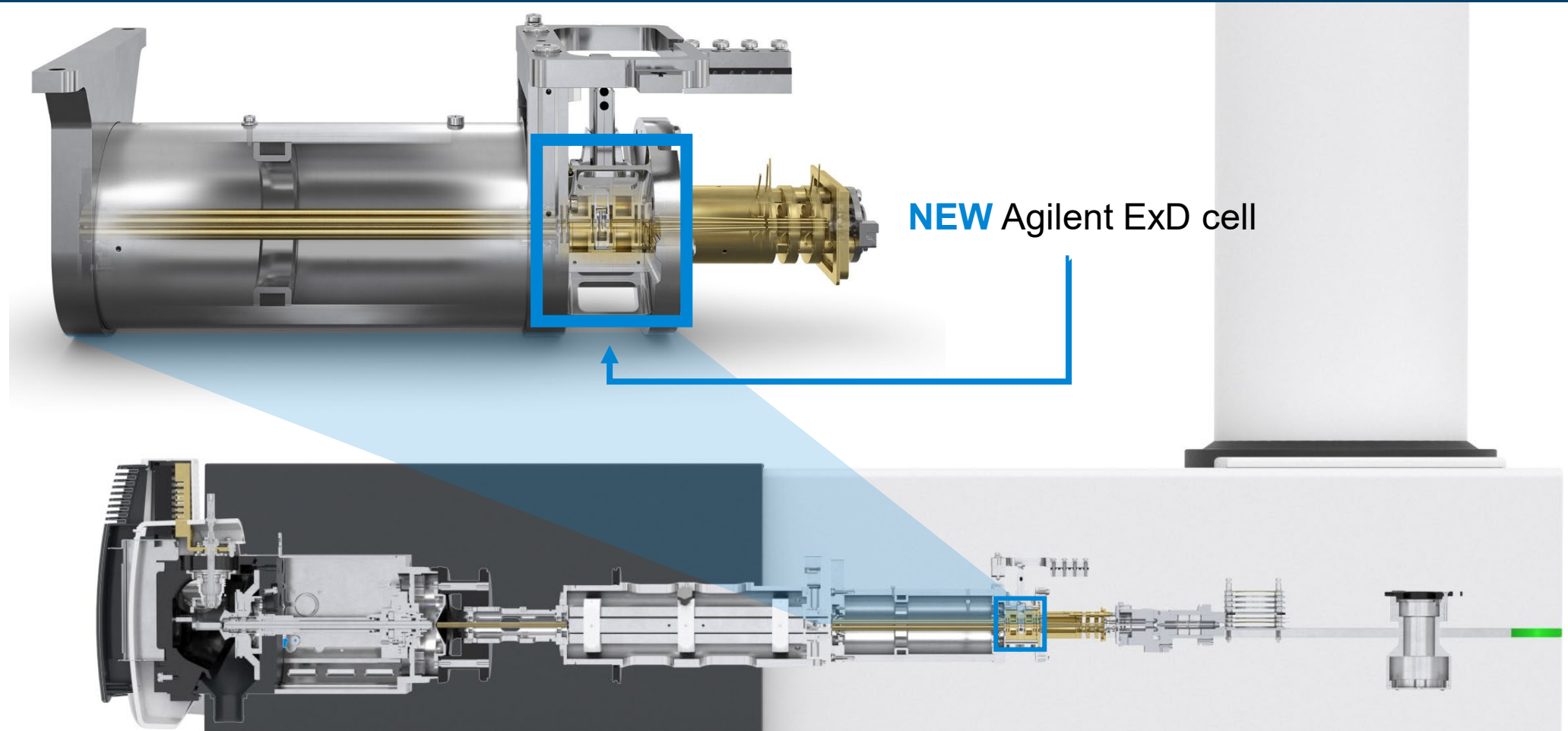


NEW Agilent ExD cell

Integrated ExD with **simplified operation**



Addressing the **most challenging** biological questions

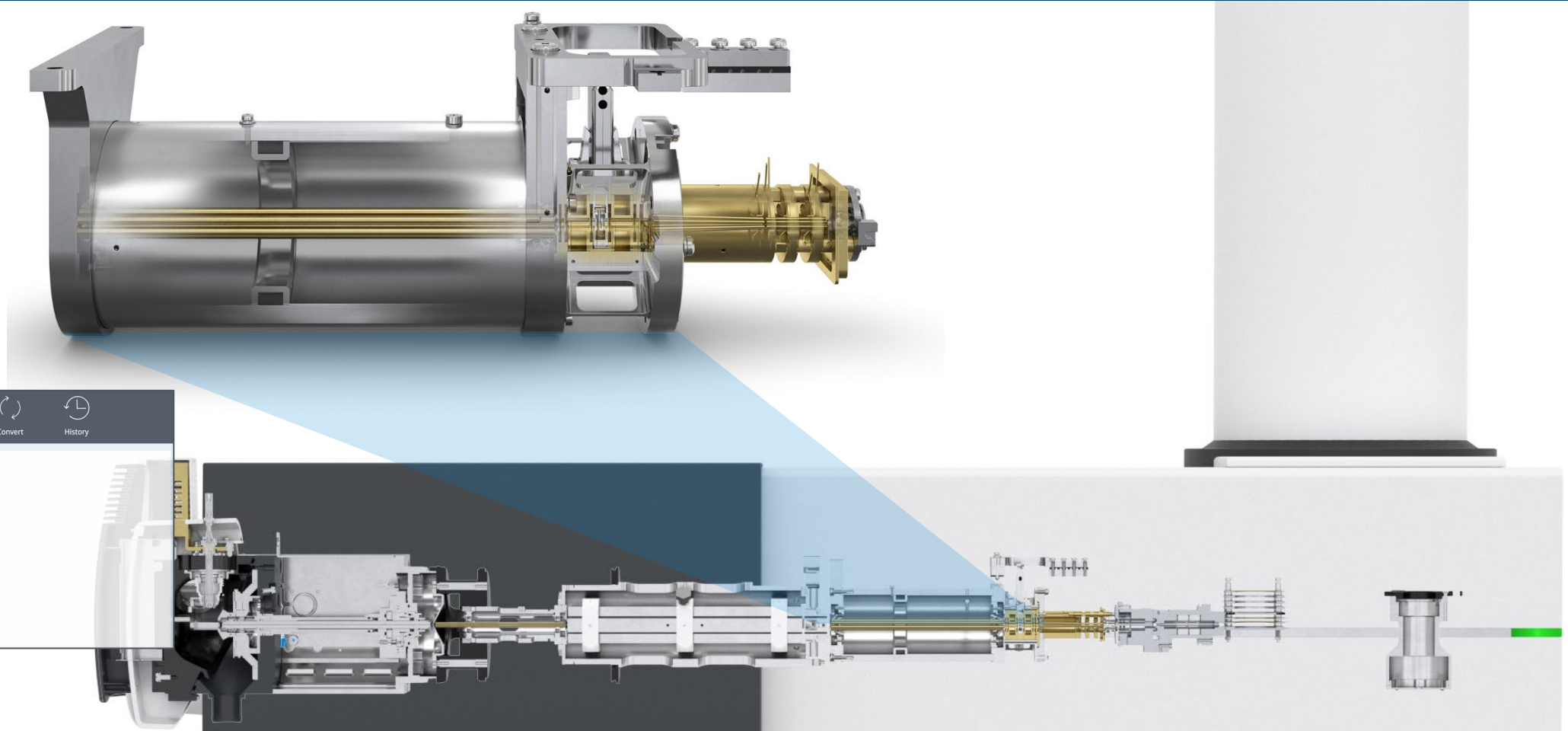


NEW Agilent ExD cell

x10 improved ECD efficiency



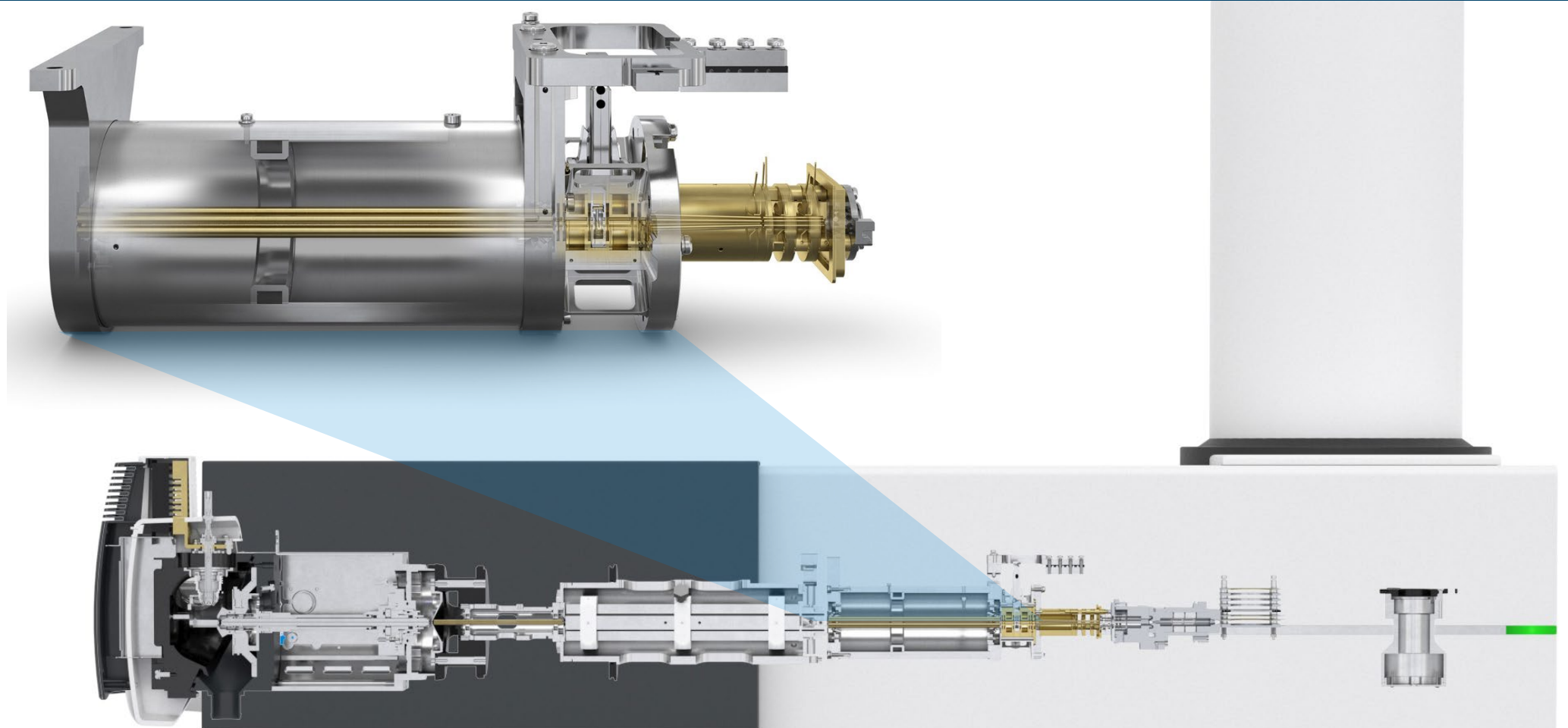
Addressing the **most challenging** biological questions



ExD Viewer visualizes **quickly and accurately**



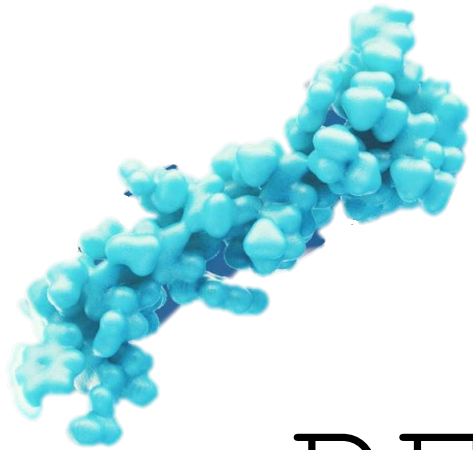
Addressing the **most challenging** biological questions



Fast, comprehensive, **intuitive** characterization

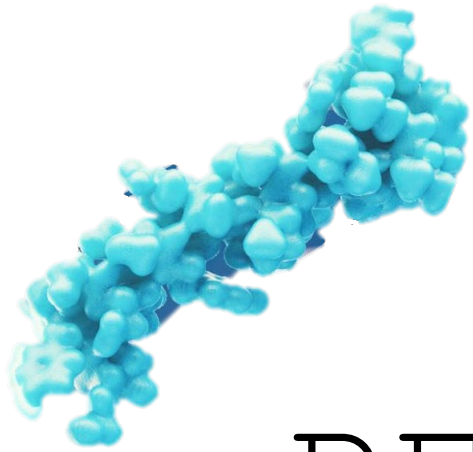


Importance of ECD fragmentation



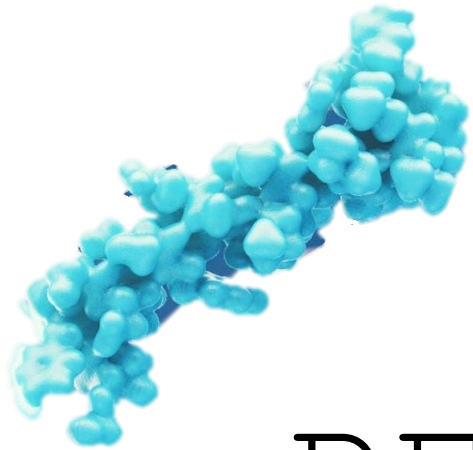
REALLY DELIGHTFULK

Importance of ECD fragmentation



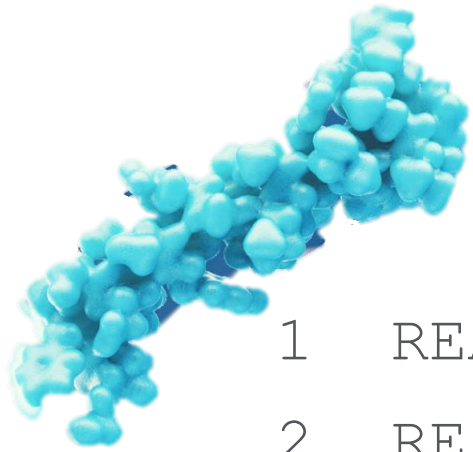
REALLY DELIGHTFULK

Importance of ECD fragmentation



REALLY DELIGHTFULK

REALLYDELIGHTFLK



1 REALLYDELIGHTFLK

2 REA**I**LYDELIGHTFLK

3 REAL**I**YDELIGHTFLK

4 REA**II**YDELIGHTFLK

...

32 REA**II**YDE**II**GHTF**I**K

33 REALLY**D**^{iso}ELIGHTFLK

34 REA**I**LY**D**^{iso}ELIGHTFLK

35 REAL**I**Y**D**^{iso}ELIGHTFLK

36 REA**II**Y**D**^{iso}ELIGHTFLK

...

64 REA**II**Y**D**^{iso}E**II**GHTF**I**K

REALLY DELIGHTFUL

Why it matters

- The human proteome is **10% leucine** and **6% isoleucine**
 - impacts **protein function** (antibody binding)
- Isoaspartate (isoD) is a product of protein aging and affects protein function

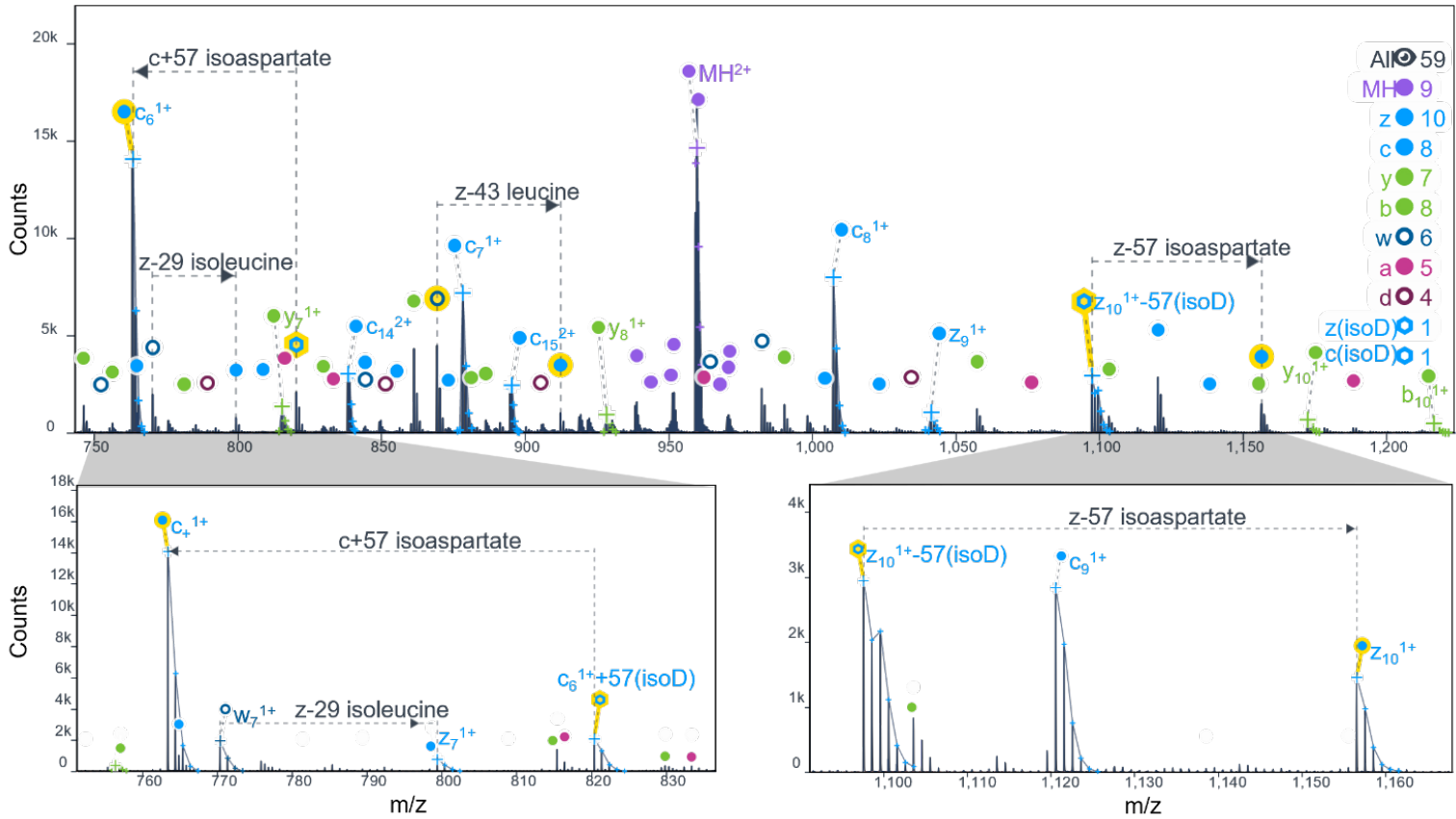
Addressing the **most challenging** biological questions



ExDViewer

Version 4.5.24

View Results Target Editor Deconvolution History



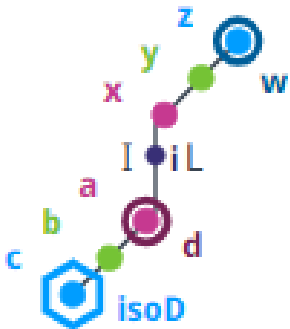
<https://exdviewer.agilent.com/>

Addressing the **most challenging** biological questions

All 5 L/I isomers differentiated



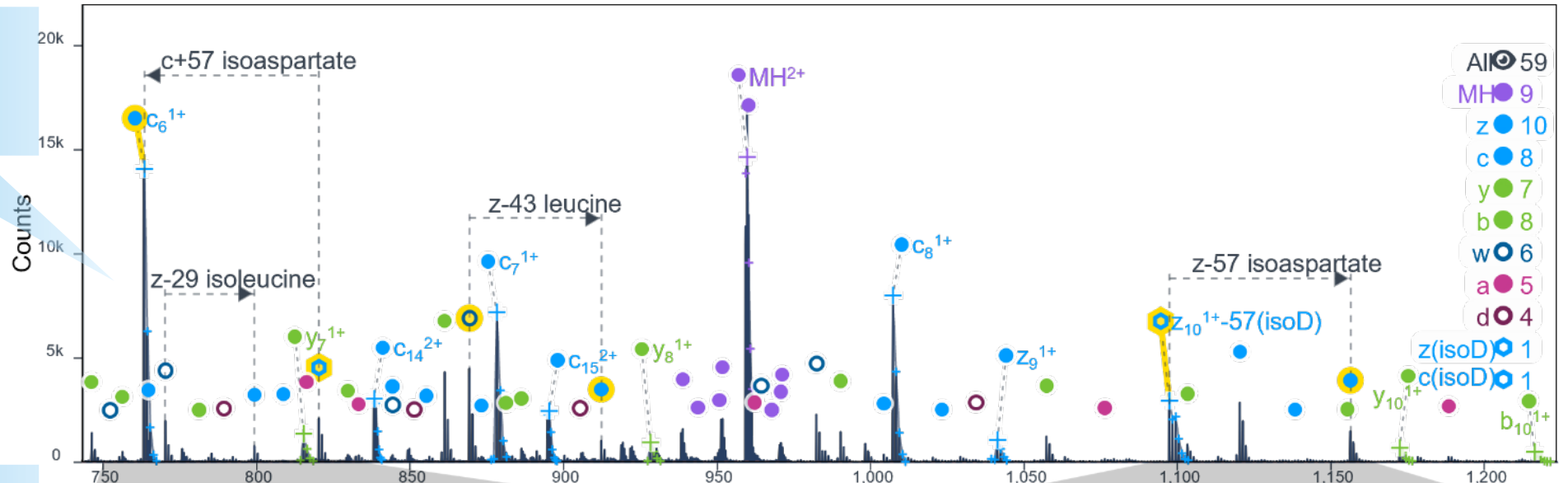
Isoaspartate



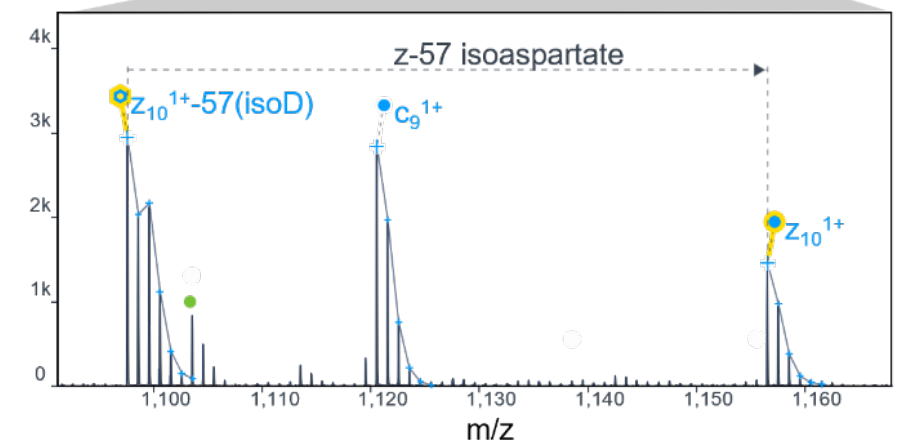
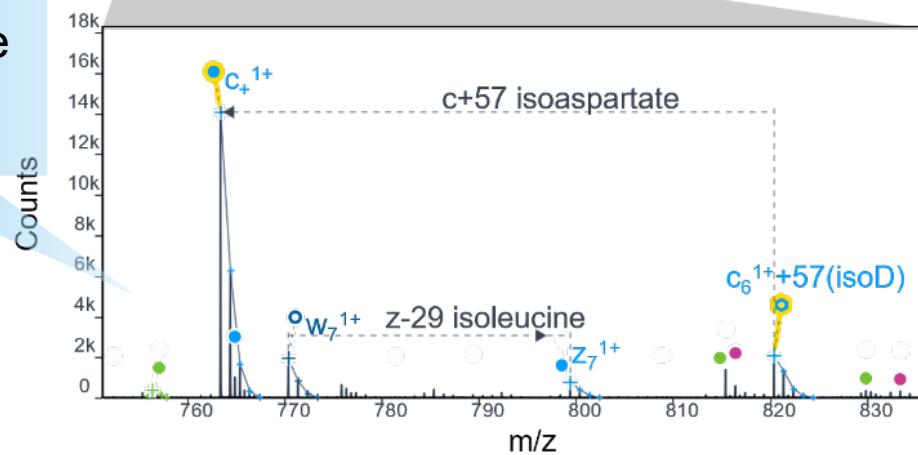
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Addressing the **most challenging** biological questions

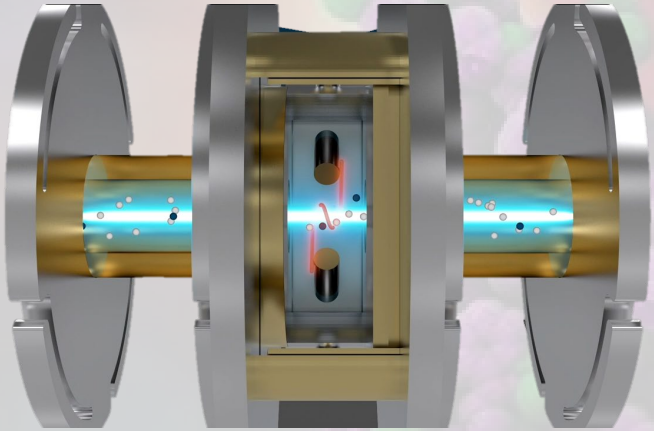
All 5 L/I isomers differentiated



MS/MS evidence for isoaspartate



Biological structure of native proteins



“The ExD cell **expands** our mass spectrometry toolkit, enabling **deeper characterization** of peptides and proteins, and particularly **native structures**”



Carter Lantz
Texas A & M University

Synthetic biology – protein engineering

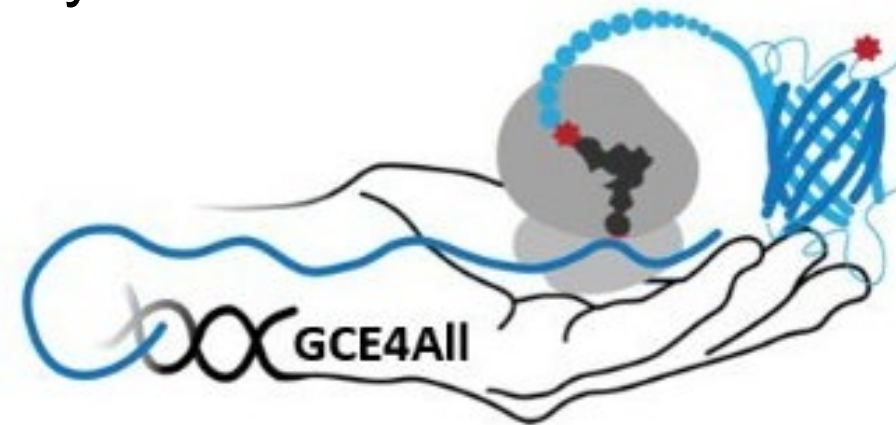
Genetic Code Expansion (GCE)

- Powerful tool for protein engineering
- Allows for site specific incorporation of non-canonical amino acids (ncAA)
- Desired properties incorporated into protein expressed in cells

Genetic Code Expansion (GCE)

GCE4All Research Center at OS

- First national center to advance research in GCE
- Encode for site specific phosphorylation

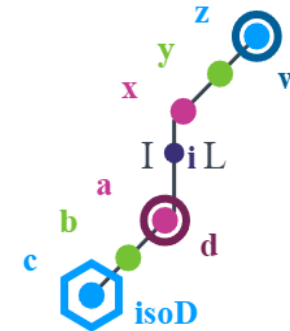
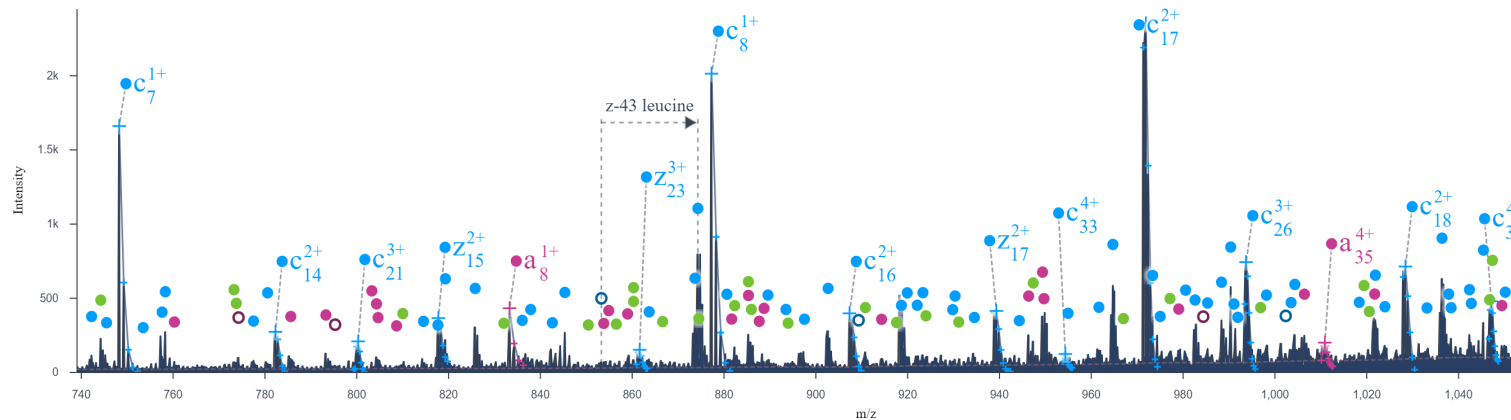
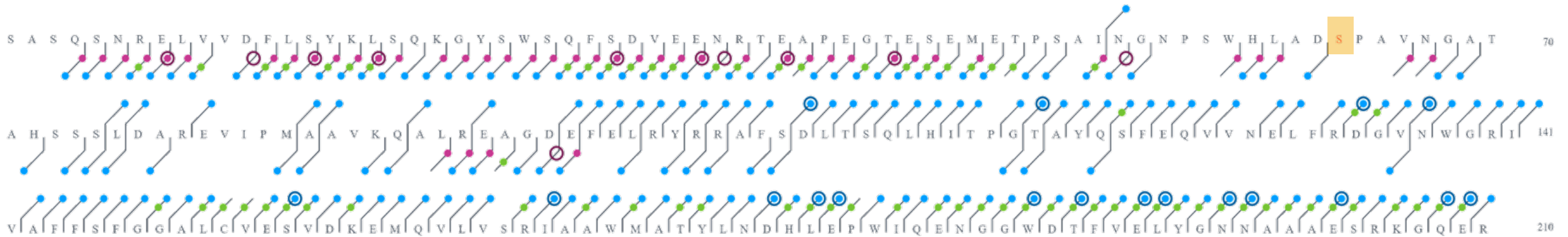


Answering **biological** questions

Protein phosphorylation

- Regulates cellular processes including, metabolism, inflammation, apoptosis (or cell death) and subcellular trafficking
- **How does phosphorylation influence protein structure and function?**

GCE and top-down ExD – site specific phosphorylation



- Faster analysis of (10 min) including sample prep & analysis
- Excellent sequence coverage on intact proteins

GCE and top-down ExD – **site specific phosphorylation**

“Comprehensive understanding of dynamic systems demands careful characterization. We are **excited to integrate ECD technology** into our routine workflow to **advance our protein characterization** efforts and **deepen our understanding** of protein phosphorylation”



Cat Vesely
Oregon State University

Glucagon-like peptide-1 (GLP-1) receptor agonists

Class of type 2 diabetes drugs

- Dulaglutide (Trulicity)
- Exenatide extended release (Bydureon bcise)
- Exenatide (Byetta)
- Semaglutide (Ozempic)
- Liraglutide (Victoza, Saxenda)
- Lixisenatide (Adlyxin)
- Semaglutide (Rybelsus)

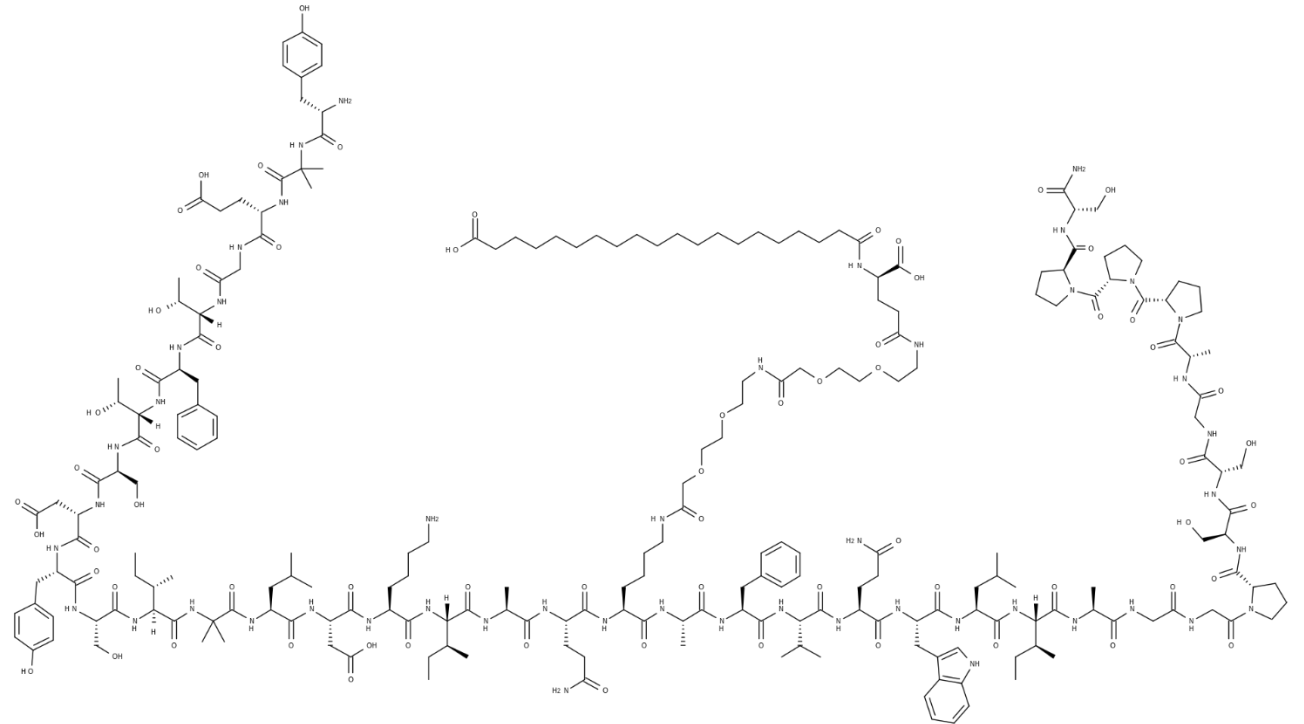
Why it matters

- Improves blood sugar
- May lead to weight loss

Glucagon-like peptide-1 (GLP-1) receptor agonists

Challenging molecules

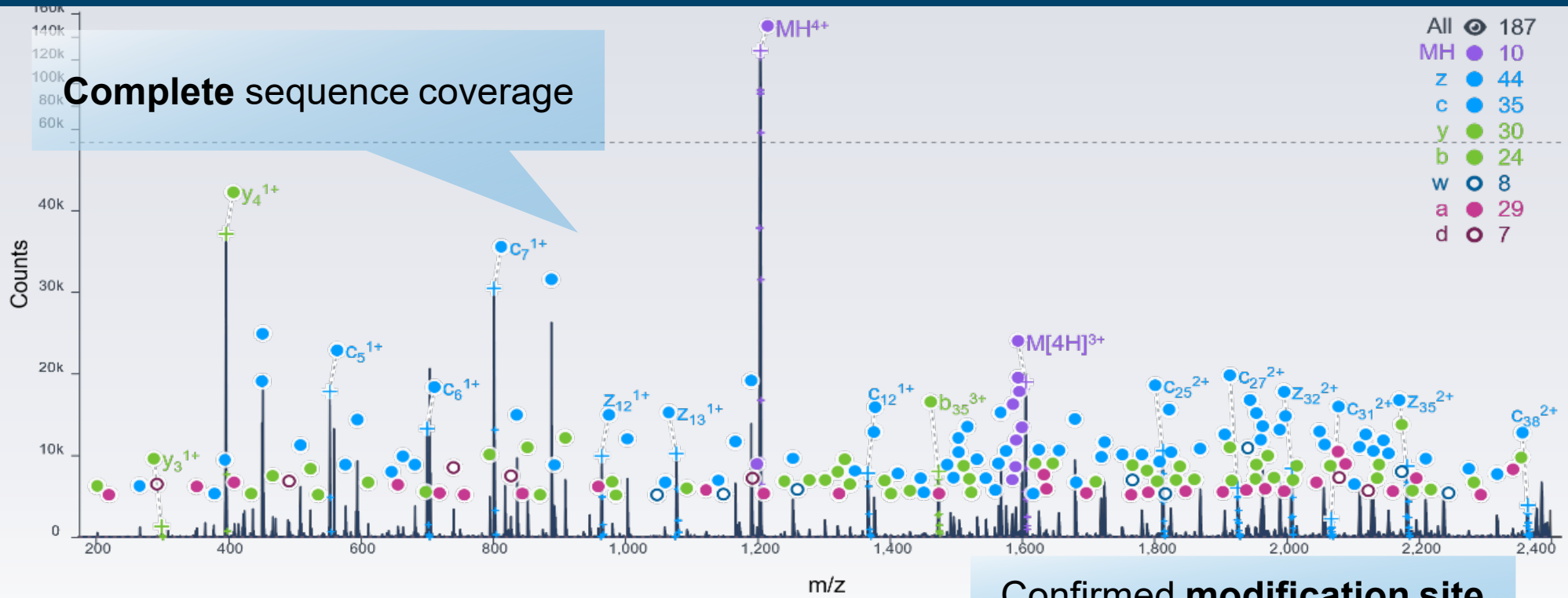
- Synthetic peptides
- Non-standard amino acids
- Unique side chains



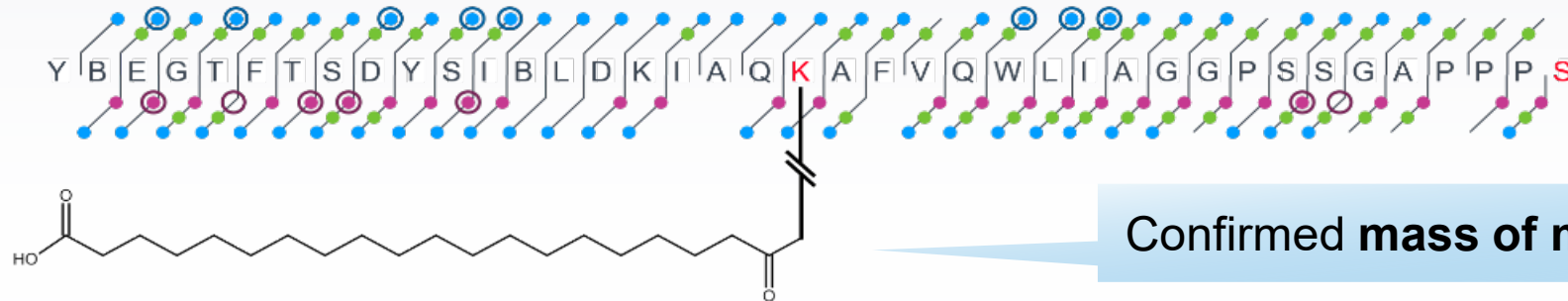
Tirzepatide GLP-1 agonist
Type 2 diabetes mellitus (T2DM) and obesity

<https://en.wikipedia.org/wiki/Tirzepatide#/media/File:Tirzepatide.svg>

Tirzepatide GLP-1 agonist



Confirmed modification site



Addressing the **most challenging** biological questions

Why it matters

- **Enhanced information** on sequence, structure, modifications and purity
 - Differentiate amino acid isomers
 - Complementary sequence information
 - Characterize labile modification
 - Addresses sequence ambiguity
- **Greater confidence** in results
- Make **faster and more informed decisions**

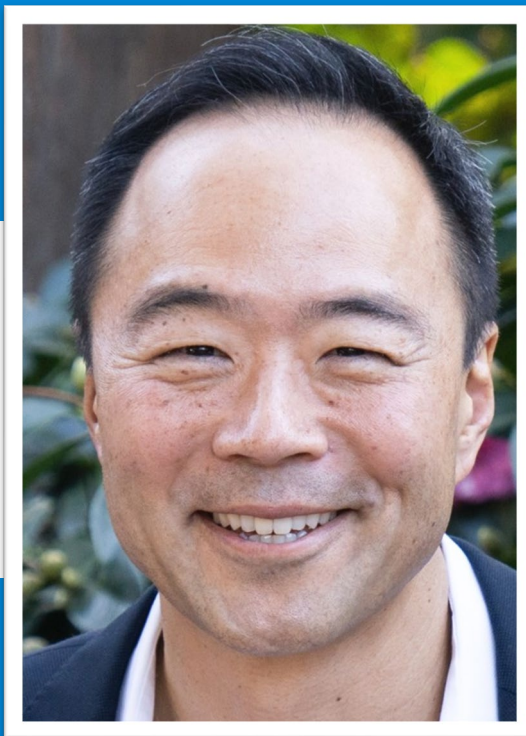
Beyond ALL Limits



Agilent

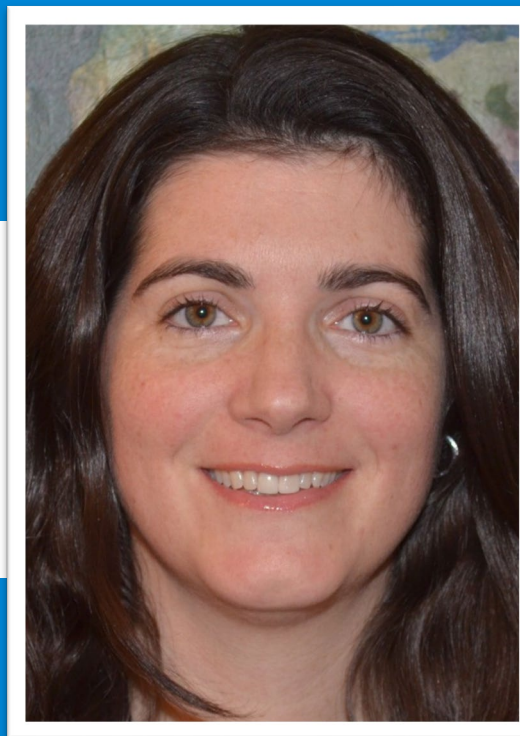
Trusted Answers

Q&A



Ken Suzuki

Vice President & General Manager
Mass Spectrometry Division
Agilent Technologies



Jennifer Gushue

Associate Vice President
Mass Spectrometry Marketing
Agilent Technologies

Intelligence that Drives Performance



Agilent

Trusted Answers