## Transforming MS Intelligence

ASMS 2022 Press Conference

June 6, 2022



## Safe Harbor Statement

This presentation contains forward-looking statements (including, without limitation, information and future guidance on the company's goals, priorities, innovation plans, new product introductions, and continued strengths and expected growth of the markets the company sells into) 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 quarterly report on Form 10-Q for the quarter ended January 31, 2021. The company assumes no obligation to update the information in this presentation



## **Today's Presenters**



### Sudharshana Seshadri

Vice President and General Manager Mass Spectrometry Division



### **Jennifer Gushue**

Associate Vice President, Mass Spec Marketing, Mass Spectrometry Division



## ASMS 2022 At-a-Glance

Mass SPECtacular Customer Appreciation Event

Sunday, June 5, 12:30–3:00 p.m. Millennium Minneapolis Hotel Grand Ballroom

Tracking Molecules Made by the Human Microbiome

**Dr. Justin Cross** Memorial Sloan Kettering Cancer Center

Carbohydrate analysis and the dark matter of food - from fundamental discoveries to start-up companies

**Dr. Carlito Lebrilla** University of California, Davis

Adopting Technologies to Streamline Biotherapeutics Characterization **Dr. Harsha Gunawardena** The Janssen Pharmaceutical Companies

of Johnson & Johnson

**Ion Mobility Event** Sunday, June 5 | 3:00-5:00 p.m. Collision Induced Unfolding: Rapid, Sensitive, Information Rich Stability Measurements

**Dr. Brandon Ruotolo** University of Michigan



The use of high-resolution ion mobility for structural insight into consequential lipid membrane biology

**Dr. Jace Jones** University of Maryland School of Pharmacy



## ASMS 2022 At-a-Glance



## Awards for Scientists in Mass Spectrometry

Research at Primarily Undergraduate Institutions Award

Steve Berger Academic Travel Awards

#### Mac Gilliland Furman University



Kayd Meldrum University of Oregon



#### Michaele Schwaiger-Haber

Washington University in St. Louis

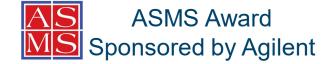


#### Darlene Solomon Award

#### Federica Fiorini

Institut de Biologie et Pathologie, CHU Grenoble Alpes





#### Agilent Sponsored Award

Agilent / FeMS Co-sponsored Award



## Delivering Best-in-Class, Time-to-Value

Collaborating and consulting with customers to develop better solutions



Continued commitment to technological innovation Sustainability as a key imperative

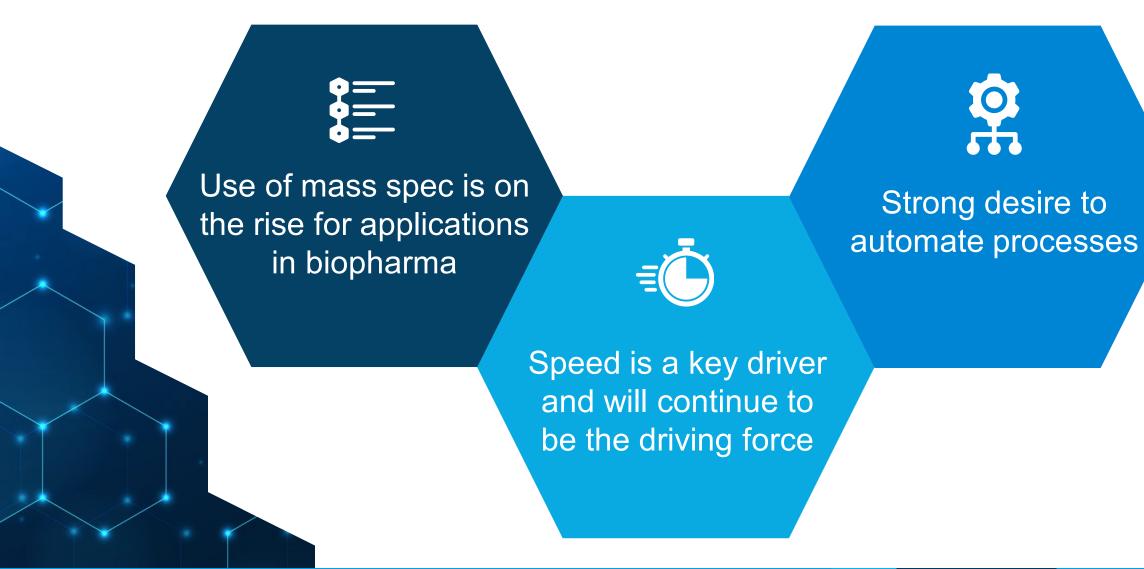
> "Sustainability is something I always think about when buying a product from a company, even if the price is higher."

> > Pathology Lab Manager

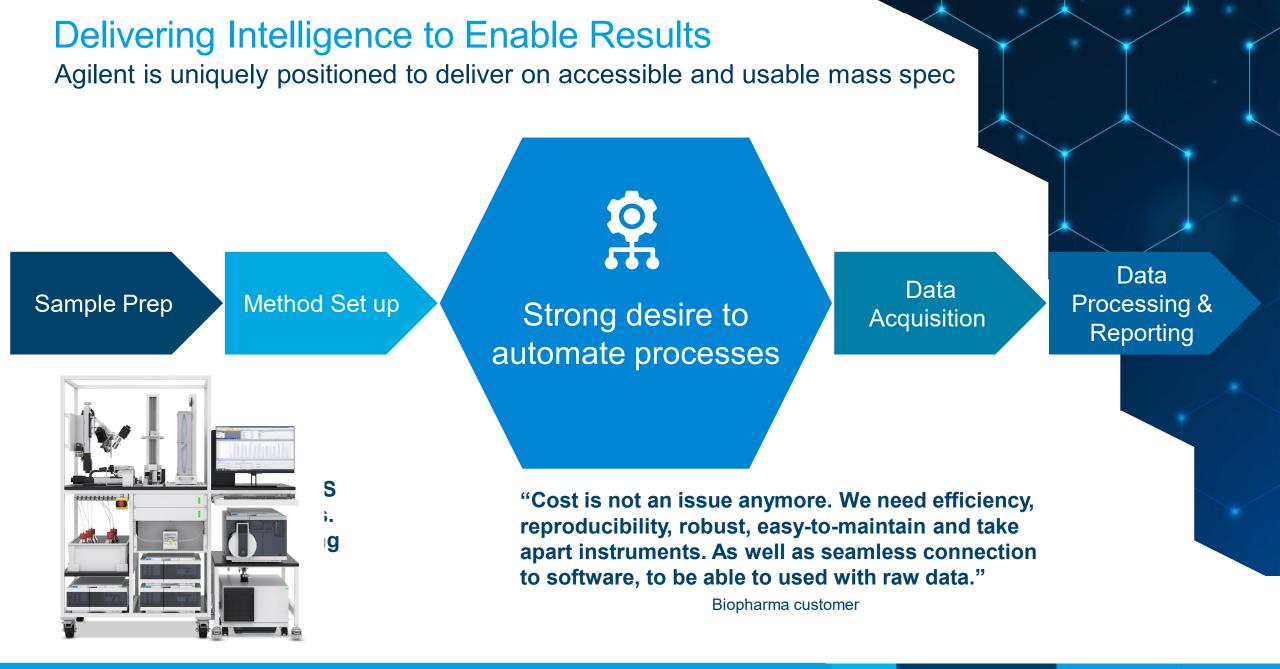


## Customer Insights Driving Agilent's Innovation Now and in the Future

In biopharma deep scientific insights driven with efficiency is paramount







## **Embracing Artificial Intelligence and Machine Learning**

- Agilent acquired AI technology from Virtual Control on February 17, 2022
- Smart technology that maintains continuous retraining on new data using AI
- Intuitive user interface requiring minimal training
- The AI technology will be integrated into future mass spec software platforms





"ACIES is in the top three list of innovations that has made significant difference in the lab operations in terms of efficiency and consistency."

Dana Park, Marketing Director, Modern Testing Services (Now a part of Eurofins)



## Aspects of Instruments and Intelligence

Link to the video available on the ASMS Media Room





Brett Marsh Research Scientist Tom Bispham Co-Founder & CEO



**Shane Tichy** Associate Vice President, Quadrupole Instrumentation





(Now a part of Agilent)





# Discover the Possibilities Agilent MS solutions





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Agien Technologies 5545XT AdvanceBio LC/Q-TOF



















## From Days to Minutes with **BioConfirm 12.0**

A giant step forward in biomolecule characterization



"I'm **really excited** about the new oligonucleotide analysis package. The integrated BioConfirm 12.0 workflow is **very easy to use and represents significant time and resource savings.**"

> Leo Joyce, Ph.D. Arrowhead Pharmaceuticals



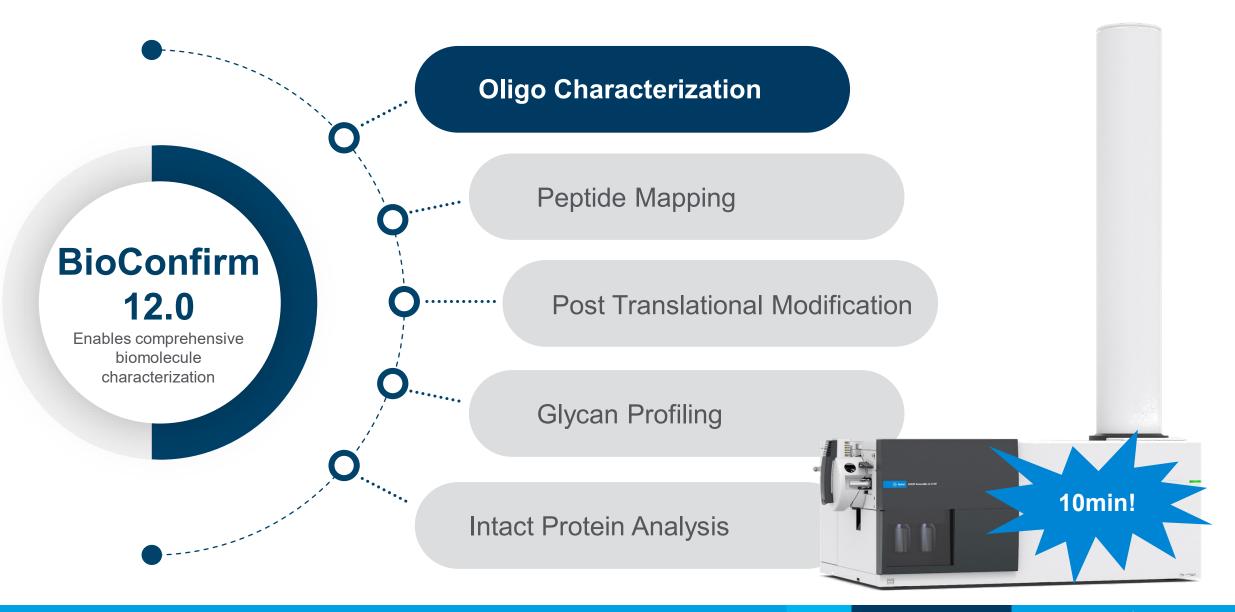
- Accelerate identification of full-length oligo products and potential Impurities
- Automate oligo sequence confirmation using MS/MS data
- Customize software to specific oligo nomenclature
- Stay in control with compliance-ready features

C A G T C G A T T G T A C T G T A C T T A





## Take a Giant Step Forward in Biomolecule Characterization





# Discover the Possibilities Agilent GCMS solutions

## Revolutionary Innovation HydroInert Ion Source

### Providing the Path to Transition to H<sub>2</sub>

- Better sensitivity
- Superior peak shape
- Industry leading spectral fidelity
- Easily transition to low cost, renewable hydrogen gas





"Replacing the helium carrier gas with hydrogen on our GCMS instruments would nearly eliminate our need for helium, easing a major pain point for commercial labs."

Agustin Pierri, Lab Manager, Weck Labs



🔆 Agilent

## Maximum Productivity, Highest Performance 5977C GC/MSD



### Throughput. Uptime. Efficiency. Operating costs.

### Intelligent instrumentation

- **CrossLab Smart Alerts** monitor instrument health and proactively notifies users of issues
- Built-in **GC** intelligence enabling remote access, convenient diagnostics and maintenance options

### Great performance, Improved flexibility

- New HydroInert Ion source overcomes performance challenges associated with hydrogen carrier gas
- JetClean self-cleaning ion source
- **Capillary Flow** Technology: Backflush improves column life and reduces source contamination



🔆 Agilent

Environmental

### **Intelligence for Optimal Performance** 7000E & 7010C GC/TQ

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- Adaptive SWARM Autotune reduces tuning time in half
- Advanced system diagnostic monitor system health and quickly diagnose any issues

#### Increased confidence with new acquisition modes

- Triggered MRM (tMRM) improves compound confirmation ٠
- Simultaneous dMRM/Scan mode enables retrospective analysis

HydroInert ion source overcomes key performance challenges with H<sub>2</sub>



New



# **Discover the Possibilities**

The Most Intelligent GCMS systems Revolutionary HydroInert Ion Source

Find new level of confidence with more accessible GCMS



# Discover the Possibilities Agilent LCMS solutions

## Unbelievably Robust, Remarkably Intelligent 6475 triple quadrupole LC/MS system

New

#### **Increased** uptime with built-in Intelligence

- Early maintenance feedback and adaptive SWARM autotune helps maintain performance and longevity of your instrument
- **Intelligent Reflex** modifies the worklist to prevent carryover or out of tolerance measurements

### Higher throughput in less time – improved productivity

Enhanced computing capacity enables greater number of **MRMs** for comprehensive methods or lower dwell times

Enables data integrity as defined in 21CFR Part 11 & Annex 11

Environmental



## Intelligent Reflex Game Changing Logic-Driven Error Prevention to intelligently modify the worklist

Norkflow 1 Norkflow 2 **Blank Injection** Test for Above Cal. Fast LC Method Carryover Range **Target Detected Revolutionary** "The Mass Hunter Intelligent Reflex feature allowed the same day **Blank Injection** Above Cal. Standard LC Test for acquisition of screening and confirmatory tests from the same Method Carryover Range Confirmation

Next Sample

well-plates for hundreds of specimens. The intelligence built into the software prompts only the presumptive positive specimens, identified during screening, to be scheduled for confirmatory testing without any user intervention."

**Government Agency** 

# Discover the Possibilities with the Smartest & Most Intelligent MS instruments



## Take a Closer Look at the Lab of the Future

HydroInert Ion Source

Automated Sequence Confirmation

Adaptive SWARM Autotune

Intelligent Reflex









" If you're not worried about the maintenance, then you can actually do the science "

- Brett Marsh





