Investor Overview

September 2021
Forward-looking statements

This presentation and the accompanying oral presentation contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, among others, statements regarding revenue growth and profitability targets, consumables and services recurring revenue growth expectations, market opportunities, expense management, productivity and efficiency goals, product innovation, Fluidigm’s access to diagnostics markets with its microfluidics products and anticipated market sizes, adoption of Fluidigm microfluidics products for diagnostics applications, plans to build diagnostics networks for the Advanta™ Dx SARS-CoV-2 RT PCR Assay, market growth for high-parameter and imaging cytometry products, expectations for increasing adoption of mass cytometry technologies in new markets, market trends and Fluidigm’s ability to introduce products, grow revenues and access markets based on such trends, anticipated collaborations and partnerships and benefits of those arrangements, the adoption of Fluidigm technology and products for translational and clinical research, strategic plans to access new markets and channels, anticipated new product introductions, and revenue and net loss guidance for future periods. Forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from currently anticipated results, including but not limited to risks relating to the potential adverse effects of the coronavirus pandemic on our business and operating results; declines in revenue from COVID-19 testing, the possible loss of key employees, customers, or suppliers; uncertainties in contractual relationships; customers and prospective customers continuing to curtail or suspend activities utilizing our products; our ability and/or the ability of the research institutions utilizing our products and technology to obtain and maintain Emergency Use Authorization from the FDA and any other requisite authorizations or approvals to use our products and technology for diagnostic testing purposes; potential changes in priorities or requirements for Emergency Use Authorizations or other regulatory authorizations or approvals; potential limitations of any Emergency Use Authorization or other regulatory authorizations or approvals; potential changes in the priorities of government agencies; challenges inherent in developing, manufacturing, launching, marketing, and selling new products; reliance on sales of capital equipment for a significant proportion of revenues in each quarter; seasonality in customer operations; unanticipated increases in costs or expenses; uncertainties in contractual relationships; reductions in research and development spending or changes in budget priorities by customers; Fluidigm research and development and distribution plans and capabilities; interruptions or delays in the supply of components or materials for, or manufacturing of, Fluidigm products; potential product performance and quality issues; risks associated with international operations; intellectual property risks; and competition. Information on these and additional risks and uncertainties in contractual relationships; customers and prospective customers continuing to curtail or suspend activities utilizing our products; our ability and/or the ability of the research institutions utilizing our products and technology to obtain and maintain Emergency Use Authorization from the FDA and any other requisite authorizations or approvals to use our products and technology for diagnostic testing purposes; potential changes in priorities or requirements for Emergency Use Authorizations or other regulatory authorizations or approvals; potential limitations of any Emergency Use Authorization or other regulatory authorizations or approvals; potential changes in the priorities of government agencies; challenges inherent in developing, manufacturing, launching, marketing, and selling new products; reliance on sales of capital equipment for a significant proportion of revenues in each quarter; seasonality in customer operations; unanticipated increases in costs or expenses; uncertainties in contractual relationships; reductions in research and development spending or changes in budget priorities by customers; Fluidigm research and development and distribution plans and capabilities; interruptions or delays in the supply of components or materials for, or manufacturing of, Fluidigm products; potential product performance and quality issues; risks associated with international operations; intellectual property risks; and competition. Information on these and additional risks and uncertainties and other information affecting Fluidigm’s business and operating results is contained in its Annual Report on Form 10-K for the year ended December 31, 2020, and in its other filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof. Fluidigm disclaims any obligation to update these forward-looking statements except as may be required by law.

Non-GAAP financial information

This presentation has certain financial information in accordance with U.S. GAAP and also on a non-GAAP basis for the three-month periods ended June 30, 2021. Management believes that non-GAAP financial measures, taken in conjunction with GAAP financial measures, provide useful information for both management and investors by excluding certain non-cash and other expenses that are not indicative of the company's core operating results. Management uses non-GAAP measures to compare the company's performance relative to forecasts and strategic plans and to benchmark the company's performance externally against competitors. Our estimates of forward-looking non-GAAP operating loss exclude estimates for stock-based compensation expense and depreciation and amortization; loss on disposal of property and equipment; future changes relating to developed and acquired technologies; other intangible assets; and income taxes, among other items, certain of which are presented in the tables accompanying our earnings release. A reconciliation of adjusted guidance measures to corresponding GAAP measures is not available on a forward-looking basis without unreasonable effort due to the uncertainty regarding certain expenses that may be incurred in the future. The time and amount of certain material items needed to estimate non-GAAP financial measures are inherently unpredictable or outside of our control. Material changes to any of these items could have a significant effect on guidance and future GAAP results. Non-GAAP information is not prepared under a comprehensive set of accounting rules and should only be used to supplement an understanding of the company’s operating results as reported under U.S. GAAP. Fluidigm encourages investors to carefully consider its results under GAAP, as well as its supplemental non-GAAP information and the reconciliation between these presentations, to more fully understand its business. Reconciliations between GAAP and Non-GAAP operating results are presented in the tables of this presentation or in the accompanying “Reconciliations and Financial Package” available at supplemental financials.

Trademarks

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Drive Meaningful Insight in Health and Disease to Improve Life

Advance human health by deploying innovative technologies.

Reveal, understand and address the biological complexities of disease.
Harnessing the Power of Two Technologies

CyTOF® Technology

Microfluidics Technology

FLUIDIGM
Powerful Growth Drivers

Vision 2025

We will span the spectrum from discovery to diagnostics, delivering double-digit revenue growth with sustained profitability.

Innovation
Launching instruments, expanding menu and creating new content and workflows

Partnerships
Building new capabilities, broadening our customer base and penetrating applied markets

Beachhead Expansion
Building a transformative diagnostics base and moving closer to health care decision making
Key Investment Highlights

1. Addressing large market opportunities

2. Offering proprietary platform technologies with demonstrated clinical research and real-world utility

3. Driving recurring revenue streams

4. Targeting long-term double-digit revenue growth and sustained profitability
Leading Provider of Indispensable Tools and Consumables

$31.0M
Q2 revenue

50.1% | 61.5%
Q2 product and service margin
GAAP | Non-GAAP

Manufacturing
Singapore | Ontario, Canada | South San Francisco

Headquarters
South San Francisco, CA, USA

~600
employees worldwide

>160
clinical trials

>1,590
mass cytometry publications

575
issued or pending patents (worldwide)

For the quarter ended June 30, 2021. For reconciliations of the Non-GAAP financial measures to the GAAP measures, please refer to: supplemental financials.
Operational Efficiencies Driving Productivity

Disciplined operating expense management

Innovation
Instrument placements, recurring revenue, partnerships

Manufacturing productivity
Long-Term Recurring Revenue Growth

Instruments
Revenue from adoption of instruments across a broad product portfolio and variety of technology platforms

Consumables
Recurring revenue from content, software and workflows used with installed instruments

Service
Recurring revenue from active, installed instruments
Global Presence

Presence in 9 of Top 10 Pharma (WW) and 61% of Comprehensive Cancer Centers (US)
Microfluidics

Attractive markets that extend beyond COVID-19
Fluidigm Microfluidics Platform

Offers ease of workflow, cost savings and turnaround time without sacrificing performance
Used Non-Dilutive Funding to Upgrade Microfluidics Platform and Manufacturing Capacity

• Investment in new Biomark platform
• Expanded manufacturing capabilities
• Development of new Sample-to-Answer IFC to significantly expand installed base into mid-throughput labs that value assay flexibility, scalable throughput, cost and data quality as their main driver to scale up their testing menu
• Experience bringing new tools through regulatory review and approval, building upon market experience
• Allows for Fluidigm’s Microfluidics business to have an advantaged role in serving currently 200 specialty labs running high complexity molecular LDTs with an addressable market of $2B
Large Market Opportunities

~$7B Total Addressable Market

- Multi-plex Proteomics: $5,113
- Research Use PCR: $3,944
- Molecular Diagnostics: $942
- NGS Library Prep: $482

~$9B Total Addressable Market

- Multi-plex Proteomics: $8,003
- Research Use PCR: $4,407
- Molecular Diagnostics: $711
- NGS Library Prep: $1,846

Growth from 2020 to 2025: 5%
With Three Focus Areas

- Mid-throughput Molecular Diagnostics
  2020-2025 Estimated CAGR ~9%

- Next-Gen Sequencing Library Prep
  2020-2025 Estimated CAGR ~14%

- Multiplex Proteomics
  2020-2025 Estimated CAGR ~8%
Platform Represents a Scalable Solution for Other Attractive Markets

<table>
<thead>
<tr>
<th>Target Customers</th>
<th>Consumer Genomics Providers</th>
<th>Clinical Research Laboratories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Telemedicine and Walk in Clinics</td>
<td>• Clinical Laboratories developing novel LDTs</td>
</tr>
<tr>
<td></td>
<td>• Personal Genomics</td>
<td>• Clinical labs supporting Digital health</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Needs</th>
<th>Fluidigm’s Next Generation Biomark™ X and the Sample-to-Answer Chip</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ability to work with low or high sample volumes</td>
<td><strong>Fluidigm’s Next Generation Biomark™ X and the Sample-to-Answer Chip</strong></td>
</tr>
<tr>
<td>• Customizable menu</td>
<td>Works with Low Sample Volumes of Blood, Nasal Swabs and Saliva</td>
</tr>
<tr>
<td>• Flexible solutions with high test capacity</td>
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</table>
Microfluidics OEM Opportunities

A key exemplar of future partnerships to grow revenue

- Provided development revenue for new instrument (derivative of future next-gen Biomark) to be sold by Olink
- Major milestone in Q2 2021 when Olink launched the instrument branded as the Signature Q100, a designated benchtop system for protein biomarker analysis
- Signature Q100 will utilize proprietary chips from Fluidigm providing attractive recurring revenue stream and supporting margins
- Partnerships like Olink will help us penetrate new markets and advance the field of proteomics and serve as a first-mover exemplar of our OEM strategy to propel Microfluidics growth.

OEM revenue is anticipated to expand rather significantly through 2025 as a result of current and contemplated partnerships with key industry players.
Microfluidics Innovation

Innovative solutions to expand market opportunities

Integrated System

**Platform will Open Up New Markets**
- Molecular Diagnostics
- Expand Addressable Market for PCR
- Clinical Labs developing LDTs
- Personal Genomics

**Sample-to-Answer IFC and Biomark™ X**

**Key Highlights**
- Integrated Fluidic Circuit (IFC) loading and qPCR function (no more Juno™ or Controller)
- 6x less volume (dimension) with same robustness of Biomark™ HD
- User installable
- Compatible with new IFC enabling Sample-to-Answer workflow
Mass Cytometry

The world’s most advanced single-cell proteomics technology
Focused on Highest Growing Cytometry Market Segments

- Clinical and Translational Research Market $700M–$1,200M (2020) growing to $1,300M–$2B in 2025
- Clinical and Translational Research Market is growing at 10%-plus
Opportunity to Expand Market Penetration

Academia and Medical Centers
Today 19%
2025 30%
Penetrated

>1,200 Sites

CROs
Today 1%
2025 10%
Penetrated

>1,100 Sites

Pharma/Biotech
Today 8%
2025 30%
Penetrated

>400 Sites

Hospital/Reference Labs
Today 0%
2025 5%
Penetrated

>700 Sites
Introducing CyTOF XT

Mass Cytometry Product Enablement Roadmap

CyTOF XT

- Reduced total cost of ownership
- Automated setup and data acquisition
- Extended run times and system monitoring
- Seven systems placed since launch

Enables

- Site standardization
- Increased productivity
- Studies with larger sample sizes
CyTOF XT: Affordable High-Parameter Cytometry

Anticipated ASP: $365K to $410K USD. Positioned to drive unit placements. High-margins Service offering in line with market expectations.

- **Instrument Price**: 35% Lower
- **Operational Cost**: 30% Lower
- **Operator**: ½ Time
- **Sample Throughput**: 2–3x Higher
Consumables

Setting the Standard in Clinical Research

Live-cell barcoding
- Sample multiplexing for increased efficiency
- Enhanced data quality and workflow

Expansion modules for Maxpar® Direct™ Immune Profiling Assay™ (H2 2021)
- Deep profiling of >35 immune cell populations with enhanced phenotyping of activation states, cytokine production

Enables
- Larger studies
- Access to more applied markets (infectious disease)
- Standardization across sites
Accelerated Pace of Adoption

National Clinical Trials Citing CyTOF Technology
By Study Start Date

Source: clinicaltrials.gov July 2021
Innovation Accelerates Segment Growth

**Higher-Throughput Platforms**

- **H2 2021**
  - CyTOF XT™
- **2022**
  - Clinical cytometry entry in China via PLT partnership
- **2023 - 2025**
  - Planned platform upgrades

**Fixed and Flexible Assays**

- **H1 2021**
  - 687 conjugates
  - 28 panels
  - 53 parameters
- **H2 2021**
  - ~750 conjugates
  - 31 panels
  - 57 parameters
- **2022**
  - 1,000–1,400 conjugates
  - >35 panels
  - 60-plus parameters
- **2023 - 2025**
  - >2,000 conjugates
  - >50 panels
  - 70-plus parameters

**Automated Analysis**

- **H2 2021**
  - Instrument remote monitoring
  - Maxpar® Pathsetter™ customization
    (automated analysis for immune monitoring)
- **2022**
  - CyTOF XT user interface upgrade
- **2023 - 2025**
  - Disease research specific modules
  - Blood cancer diagnostic and immunotherapy guidance (PLT)
  - Cloud analysis
Tissue Imaging

The most proven approach to high-multiplex imaging and single-cell protein analysis
Meeting the Needs of Target Markets

Translational and Clinical Research

**Translational**
- **Segment/Customer Need:** High-multiplexing, working with limited blood/tissue samples and inclusion of spatial information
- **Fluidigm Solution:** Mass Cytometry and Tissue Imaging for Fluidigm’s customers has shown it provides the highest plexity for protein targets and is identifying new biomarkers associated with alternate disease prognoses and therapy guidance.

**Clinical**
- **Segment/Customer Need:** Automation, consistency and standardization, fixed and validated panels, unbiased analysis
- **Fluidigm Solution:** Foundational technology provides consistent and stable measurement/readout. Mass Cytometry for Fluidigm customers has shown it provides an ability to test new biomarkers associated with disease prognoses and therapy guidance.

**Research Genre**

**Description**

**Discovery Research**
Systematic study directed toward greater understanding of fundamental mechanisms that drive disease

**Translational Research**
Transfers new understandings into the development of new methods for diagnosis, therapy and prevention in humans

**Clinical Research**
The study of human subjects and samples, testing new methods of diagnosis, prevention and treatment
Fluidigm Strength in Translational Markets

Spatial proteomics is largely translational today, but the potential for spatial in the clinical setting is growing rapidly.

- Total Tissue Imaging market is growing at ~12% CAGR.
- Translational segment is driving demand for high-plex platforms.
- Increased future addressable market:
  - Improved workflow by aggregating current immunohistochemistry biomarkers into one test
  - Improved predictive value compared to existing prognostic therapy guidance test with potential novel content unique to spatial
Opportunity to Expand Market Penetration

Academia and Medical Centers
- Today: 8%
- 2025: 30%

Pharma/Biotech
- Today: 1%
- 2025: 10%

CROs
- Today: 1%
- 2025: 5%

Hospital/Reference Labs
- Today: 0%
- 2025: 5%

>1,200 Sites
>400 Sites
>1,100 Sites
>700 Sites
Fluidigm Offers the Most Complete Solution

Translational and Clinical Research

<table>
<thead>
<tr>
<th></th>
<th>Marker Type</th>
<th>Multiplexity</th>
<th>Resolution</th>
<th>Cost per Sample</th>
<th>Sensitivity</th>
<th>Verified Reagents</th>
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<tbody>
<tr>
<td>Spatial Proteomics</td>
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<td>Cyclic Immunofluorescence</td>
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<td>✔️</td>
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<td>✗</td>
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<tr>
<td>Spatial Transcriptomics</td>
<td>✗</td>
<td>✔️</td>
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# Vision 2025: Innovation

To Penetrate Future Clinical Settings

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<th>Platforms</th>
<th>Fixed and Flexible Assays</th>
<th>Automated Analysis</th>
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<tr>
<td><strong>Q4 2021</strong></td>
<td><strong>H2 2021</strong></td>
<td><strong>H2 2021</strong></td>
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</table>
| • New Tissue Imager early access | • 150–200 conjugates  
• 6 panels  
• 39 channels | • Semi-automated analysis                         |
| **H1 2022**          | **2022**                                             | **2022**                                  |
| • Commercial release of new Tissue Imager | • 400–600 conjugates  
• 10-plus panels  
• 40 channels | • Application-specific output  
• AI cell segmentation |
| **2022–2025**        | **2022–2025**                                        | **2023–2025**                             |
| Future platform development focused on:  
• Increased speed, sensitivity, throughput and robustness  
• Simplified user experience  
• Automation | • >1,000 conjugates  
• >20 panels  
• 50-plus channels | • Disease-specific modules  
• Cloud-based personalized applications |

**2023–2025**

• Disease-specific modules  
• Cloud-based personalized applications
Bringing New Insights to Life™