

Fluidigm

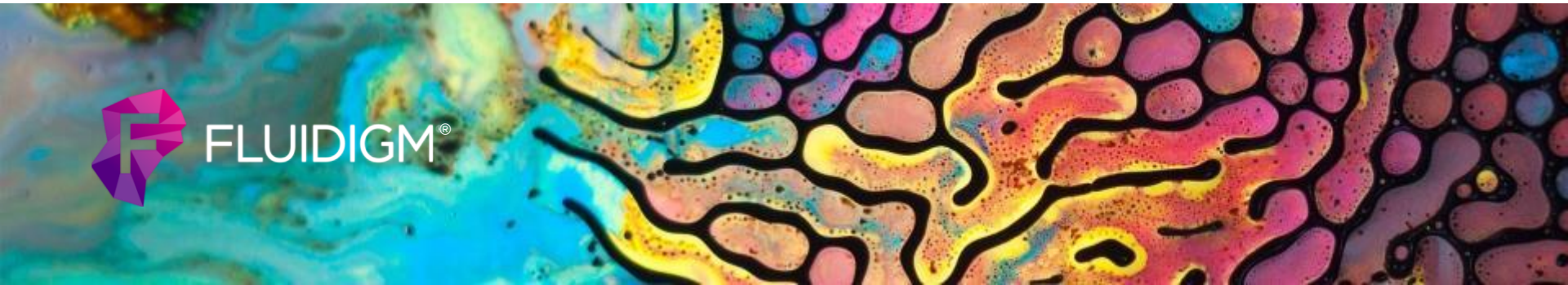
Investor Presentation

Q1 2017

May 2017



FLUIDIGM®



Use of forward-looking statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, among others, statements regarding planned strategic initiatives and expected timing and benefits of such initiatives, the planned uses and expected benefits to customers of recently-introduced products, plans to increase operational efficiency and improve financial discipline, market growth expectations, projected revenues, expenses and cash flows for the second quarter of 2017, and annual consumables pull-through estimates. 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 introductions of new capital equipment products driving volatility in revenue from period to period, the future financial performance of Fluidigm product lines, particularly with respect to legacy instruments that may have contributed significant revenue in prior periods; challenges inherent in developing, manufacturing, launching, marketing, and selling new products; potential product performance and quality issues; the possible loss of key employees, customers, or suppliers; intellectual property risks; competition; Fluidigm research and development, sales, marketing, and distribution plans and capabilities; reduction in research and development spending or changes in budget priorities by customers; interruptions or delays in the supply of components or materials for, or manufacturing of, its products; seasonal variations in customer operations; unanticipated increases in costs or expenses; and risks associated with international operations. Information on these and additional risks and uncertainties and other information affecting Fluidigm's business and operating results is contained in Fluidigm's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017. 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.

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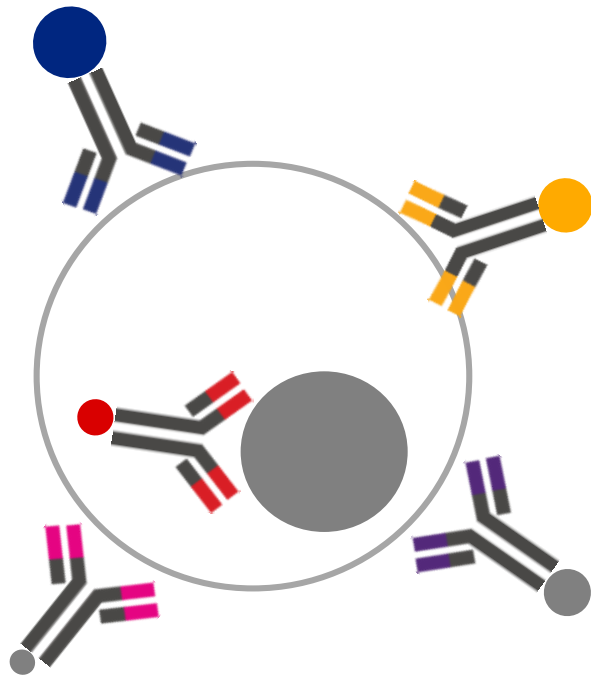
Use of non-GAAP financial information

This presentation has certain financial information in accordance with U.S. GAAP and also on a non-GAAP basis for the first quarters of 2017 and 2016, for the 2013-2016 fiscal years, and projected for the second quarter of 2017.

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 expenses exclude estimates for stock-based compensation expense, 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. 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 accompanying tables of this presentation.

Fluidigm

An innovative leader in cell and tissue analysis for translational and clinical research



Mass cytometry



Genomics

Empowering translational, clinical and pharmaceutical research

Oncology

Immunology

Stem cell
research

Neuroscience

Inherited
diseases

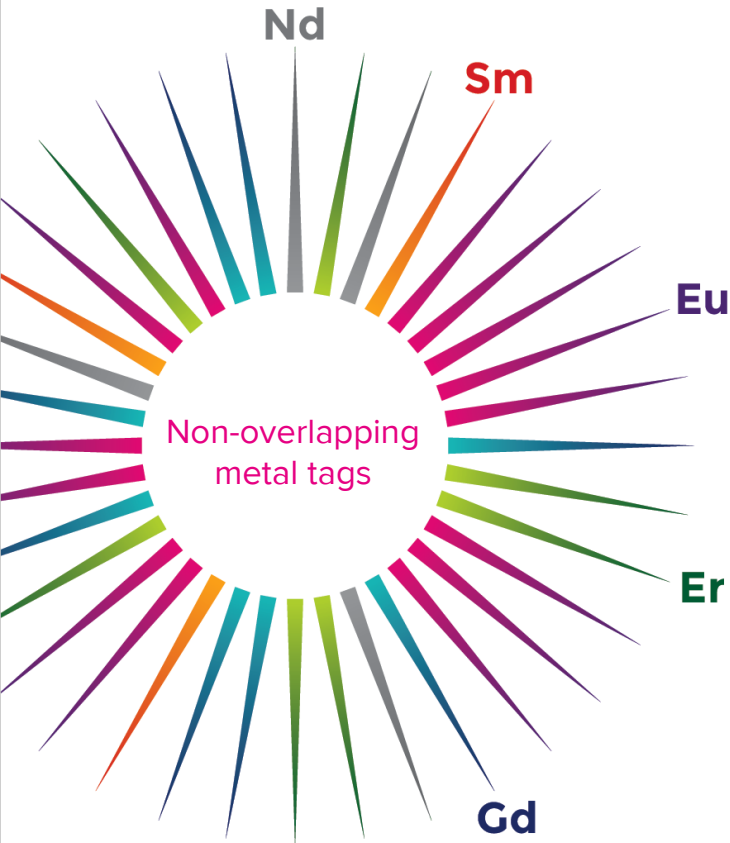
Obtain comprehensive cellular profiles from blood, tissues and tumors in human and animal model systems.

Discover rare cell populations and biomarkers that inform disease progression and therapeutic development.

Affordably scale next-generation sequencing (NGS) library preparation, genotyping and gene expression through automation and miniaturization of reaction volumes.

Mass cytometry advantages

Unlocking new insights



Deeply profile 40+ parameters across millions of cells with little to no signal overlap, all from a single tube.

Flexible Maxpar® panels can be easily customized.

Maximize results from precious samples.

Proven technology, referenced by hundreds of publications from leading laboratories around world

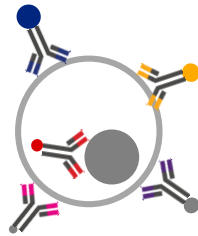
Mass cytometry workflow



1

Design

panels using Maxpar[®] antibodies and reagents or use pre-designed Maxpar panels.



2

Stain

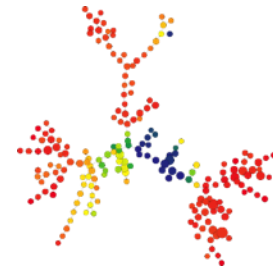
cells using protocols and buffers validated by Fluidigm.



3

Acquire

high-parameter data for millions of cells with the Helios[™] mass cytometer.



4

Analyze

data using cloud-based tools.

Developing partnerships

Established partner



Imaging mass cytometry workflow

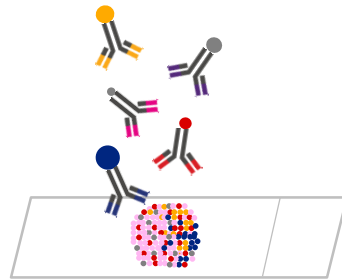


1

Design

panels using Maxpar[®] antibodies and reagents.

Developing partnerships



2

Stain

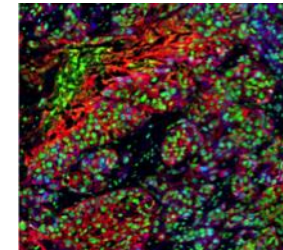
cells and tissues on slides using protocols and buffers validated by Fluidigm.



3

Image

high-parameter data for millions of cells with the imaging mass cytometry (IMC) system.



4

Analyze

data using cloud-based tools.

Established partner



University of Zurich

Immune monitoring

Comprehensive immune cell profiling



Customer Goal

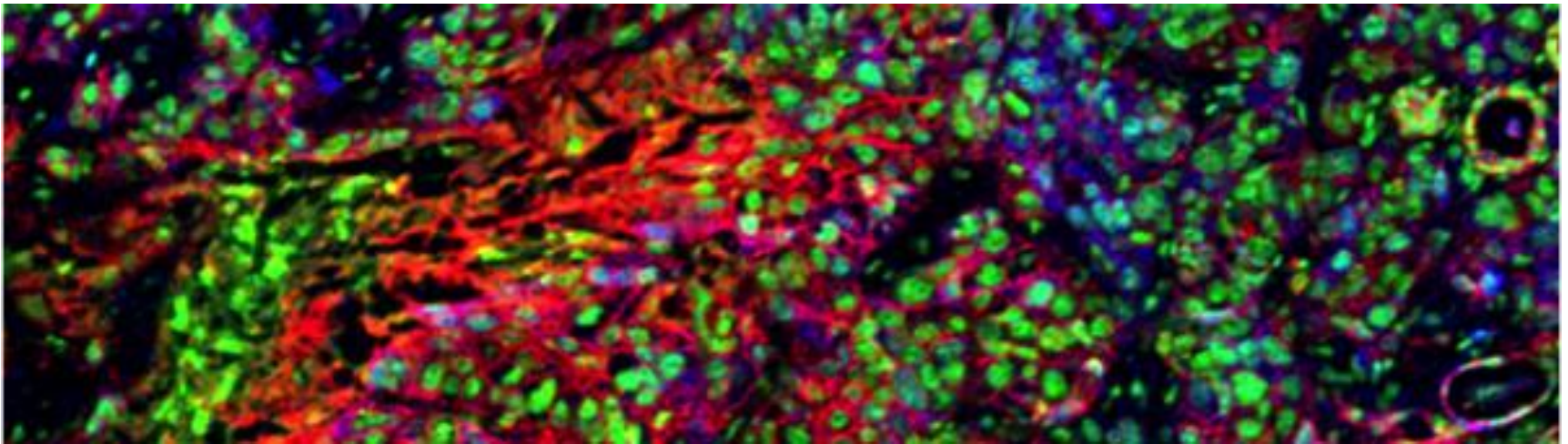
- Monitor the effects of immunotherapies and vaccine strategies in cancer.
- Acquire the ability to deeply profile cell surface, intracellular and phosphoprotein markers in immune cell populations.
- Ensure panel flexibility to customize based on each project need.

Fluidigm Solutions

- Helios™, a CyTOF® system
- Maxpar® antibodies and panels
- Custom conjugation with metal labeling
- Cell barcoding for higher throughput

Cancer biomarker development

Identification of multibiomarker signatures in spatial context



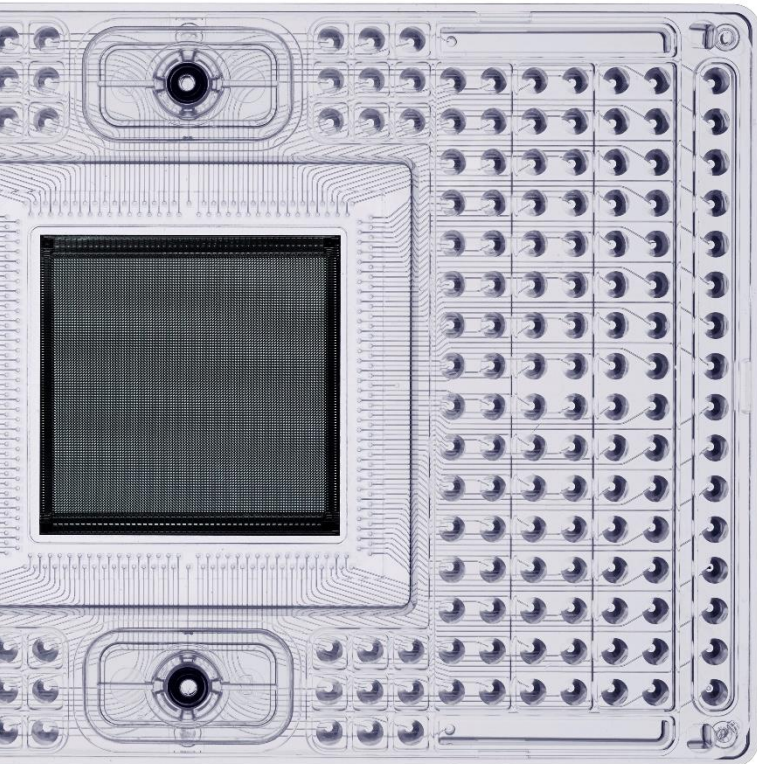
Customer Goal

- Interrogate tumor sections and cell smears across multiple protein biomarkers to develop prognostic and diagnostic biomarker signatures.
- Visualize cancer and immune cell biomarkers in spatial context.
- Ensure panel flexibility to meet varying project needs.

Fluidigm Solutions

- Imaging mass cytometry system
- Maxpar® antibodies and panels
- Custom conjugation with metal labeling

Genomics: the power of microfluidics



Greater cost-effectiveness with reagent miniaturization

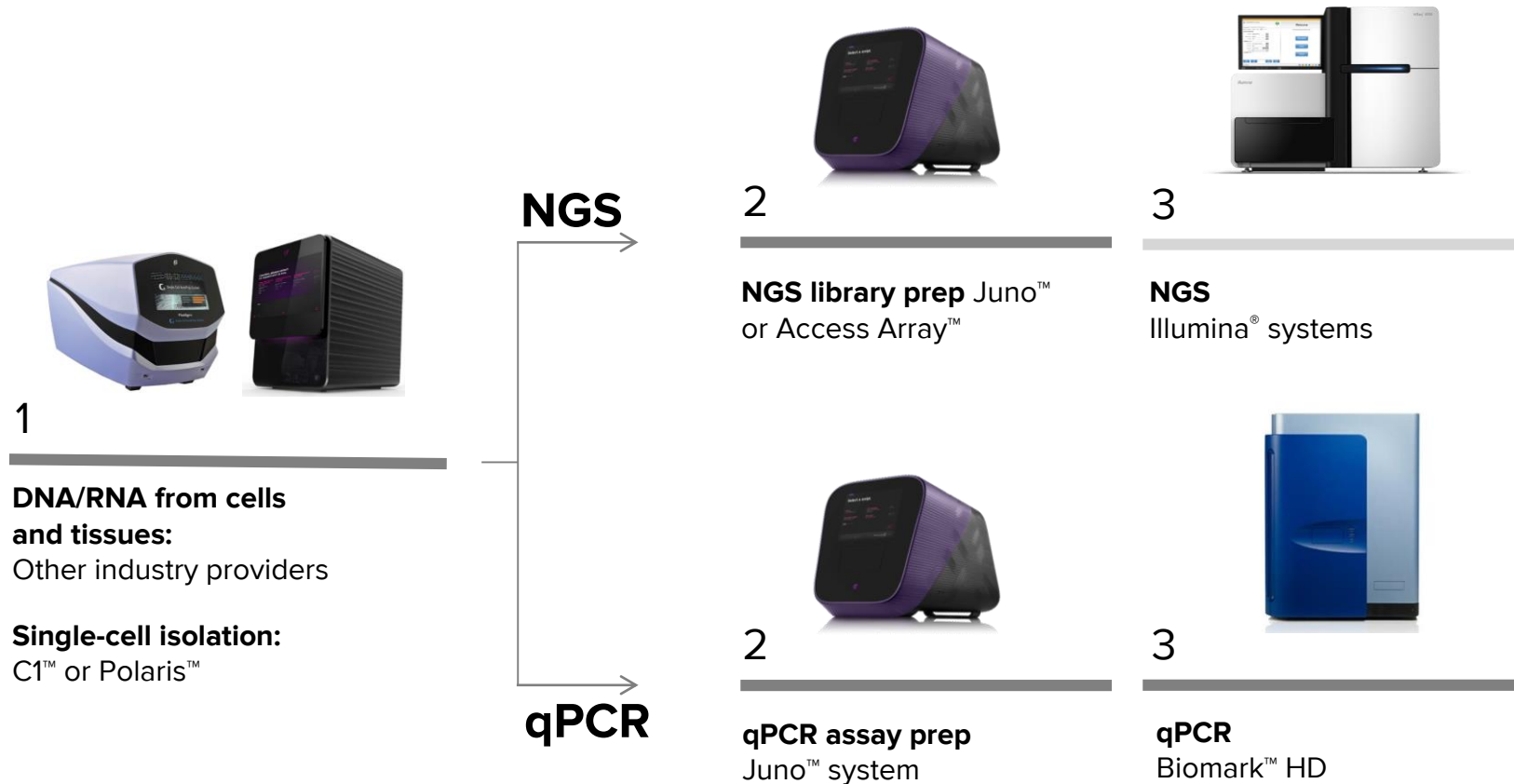
Scalable sample throughput without changing technologies

Flexible panel design allowing additional markers to be easily added over time

Maximize results from precious samples

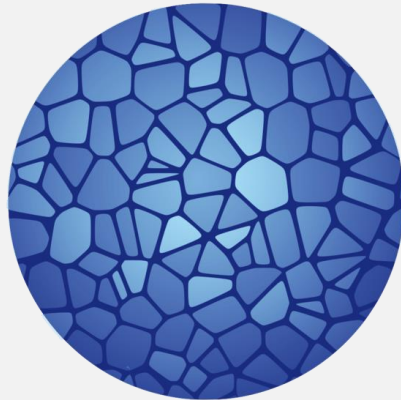
Trusted performance similar to established market platforms

Providing efficient NGS library prep and qPCR workflows



Human cell atlas initiative

Development of a comprehensive atlas at single-cell resolution



HUMAN CELL ATLAS

Customer Goal

- Develop a comprehensive cell atlas of human cells and tissues.
- Large-scale screening to identify unique cell populations
- Deep profiling of defined cell populations to bring greater meaning in health and disease

Fluidigm Solutions

- Fluidigm is an active participant in the Human Cell Atlas Initiative.
- Fluidigm provides the broadest menu of single-cell applications for deep characterization and functional analysis, including high-quality, single-cell, full-length mRNA sequencing, epigenetics profiling and imaging mass cytometry.

Clinical research laboratories

Scalable and cost-efficient genomic analysis



Customer Goal

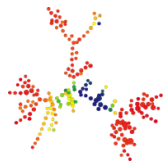
- Routine screening of somatic and inherited mutations
- Lower cost per sample, reduced hands-on time to maximize profitability
- Access to proven predesigned clinical research panels and flexible options to customize over time

Fluidigm Solutions

- Biomark™ HD allowing easy migration of TaqMan® qPCR assays
- Juno™ for targeted NGS
- Access to growing list of Fluidigm clinical research panels in development

A complete view: oncology research

Identification of tumor- and blood-associated biomarker signatures with mass cytometry and genomics solutions

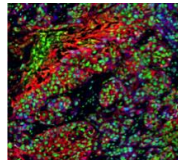


Identify & monitor immune signatures

Helios™ and Maxpar® antibody panels



Q4 2016
Maxpar™ Human T Cell Immuno-Oncology EX Panel Kit



Tissue biomarker signatures

Imaging mass cytometry



Q4 2016
First imaging mass cytometry system commercial placements



Characterization of T cell receptor and mutation diversity at single-cell resolution

C1™



Q2 & Q4 2016
Single-cell TCR sequencing application
New medium-cell HT IFC



Somatic variant detection

Juno™ NGS library prep



Q3 & Q4 2016
New targeted DNA NGS library prep products
GenomOncology partnership



Immuno-oncology gene expression

Biomark™ HD



Q1 2017
Advanta™ Immuno-Oncology Gene Expression Assay
GenomOncology partnership

Attractive growing markets

Mass cytometry

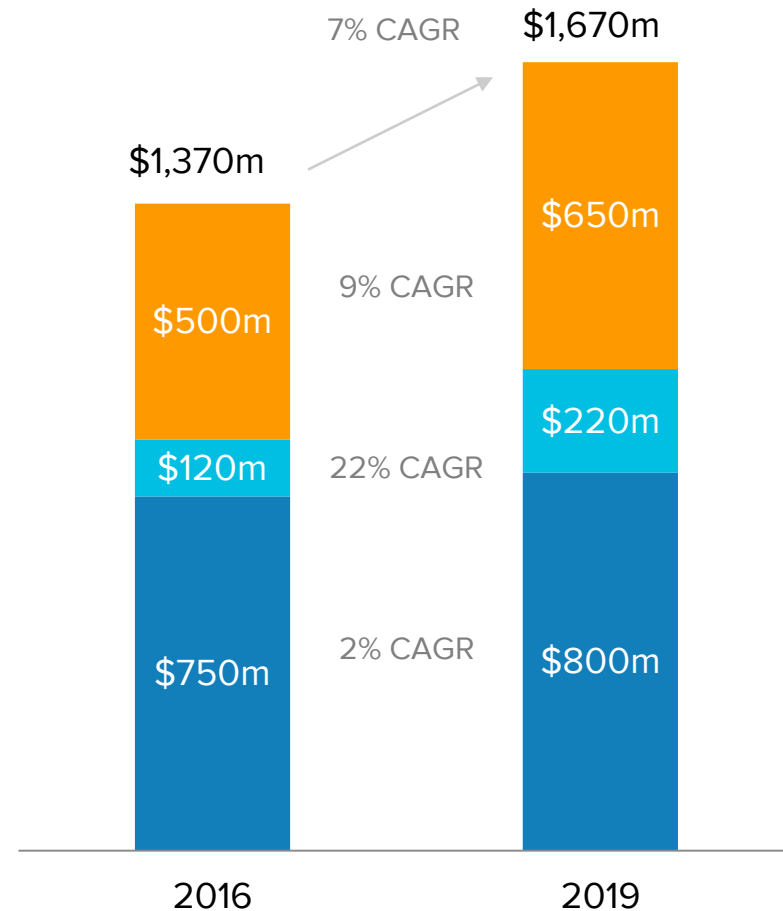
- Mid-to-high-parameter flow cytometry and high-end microscopy/imaging driven by oncology and immunology developments
- Helios™ competitive advantage in 15-plus-parameter flow cytometry market
- Imaging mass cytometry (IMC) is an evolving category in high-end microscopy market.

Single-cell genomics

- Single-cell research market driven by publications, single-cell funding and initiatives such as human cell atlas
- C1™ competitive advantage in breadth of applications and quality

Genomics

- Genomics market driven by conversion to next-generation sequencing
- Fluidigm (including Biomark™, EP1™ and Juno™) is competitive in mid-plex market and provides low-cost, efficient, accurate solutions for limited and low-quality samples.



Strategic pillars

2017 is a transformational year



Foster Innovation and Partnerships

- IMC system commercial release to high-value customers
- Release of C1™ medium-cell HT IFC
- Maxpar® panel launch
- GenomOncology partnership

- Continue metered product launch cadence with feature-complete products and support
- Build application and workflow solutions
- Expect more partnership announcements

Increase Operational Efficiency

- Established Operations Council (OC)

- Recruited Business Process Excellence Leader in Q1
- Hired Chief Information Officer
- Will provide periodic updates of OC accomplishments

Improve Financial Discipline

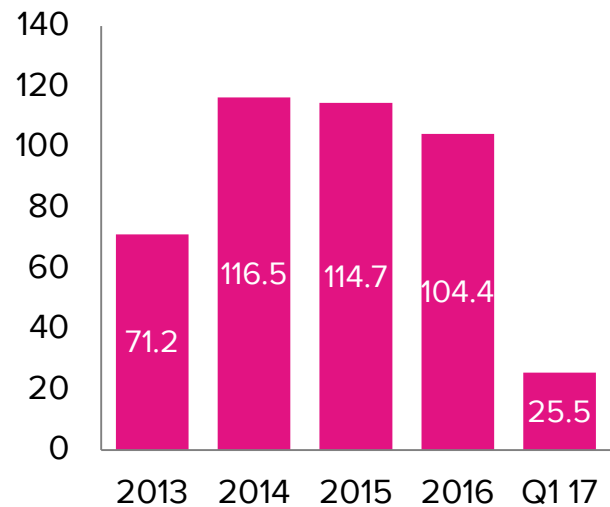
- Established Business Transformation Office (BTO)

- Consolidated research and applied sales teams in Q1
- Hired General Managers in Japan and Europe in Q1
- Began to realign and right-size organization (includes headcount reduction) in Q1
- Expect to reduce operating expenses by \$8 million in 2017, before severance expenses, starting in Q2
- Will provide periodic updates of implemented BTO measures

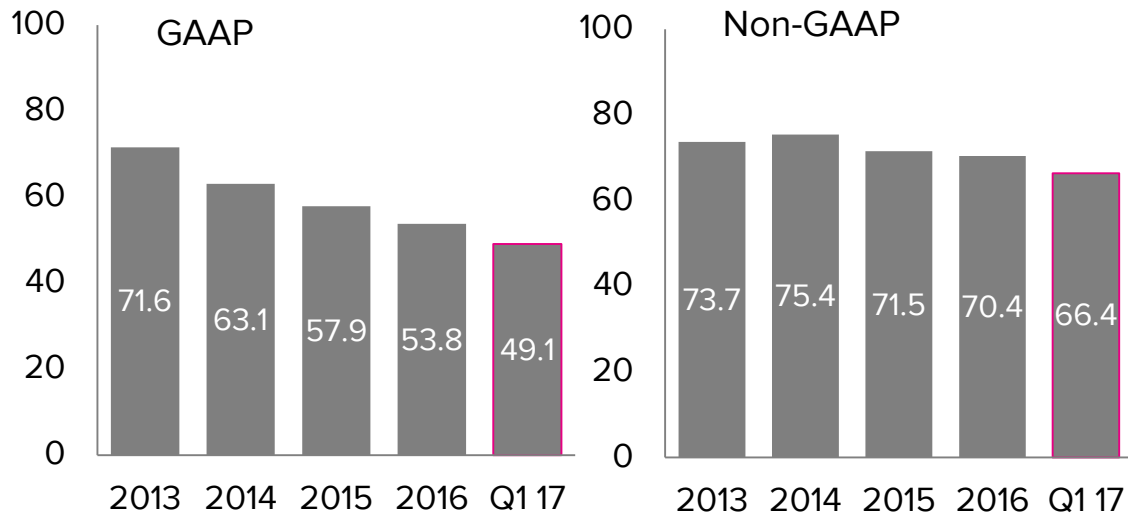
Financials

Revenue and product margins

Revenue (\$, in millions)^a



Product margins (%)^b

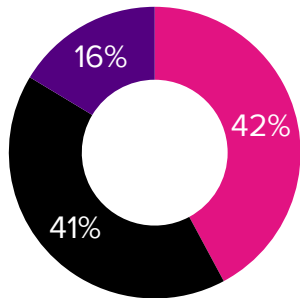


(a) Acquired DVS in February 2014

(b) Reconciliation of these non-GAAP measures to GAAP product margins is provided at the end of this presentation. 19

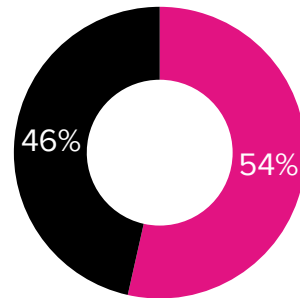
Q1 2017 revenue profile

Revenue by category



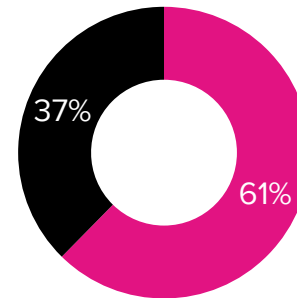
- Instruments
- Consumables
- Service

Product revenue by market



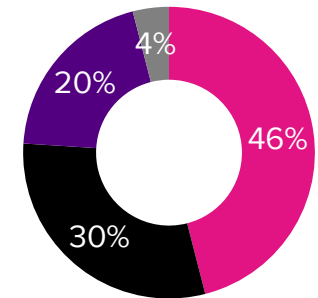
- Genomics
- Mass cytometry

Product revenue by customer type



- Research
- Applied

Revenue by geographic area



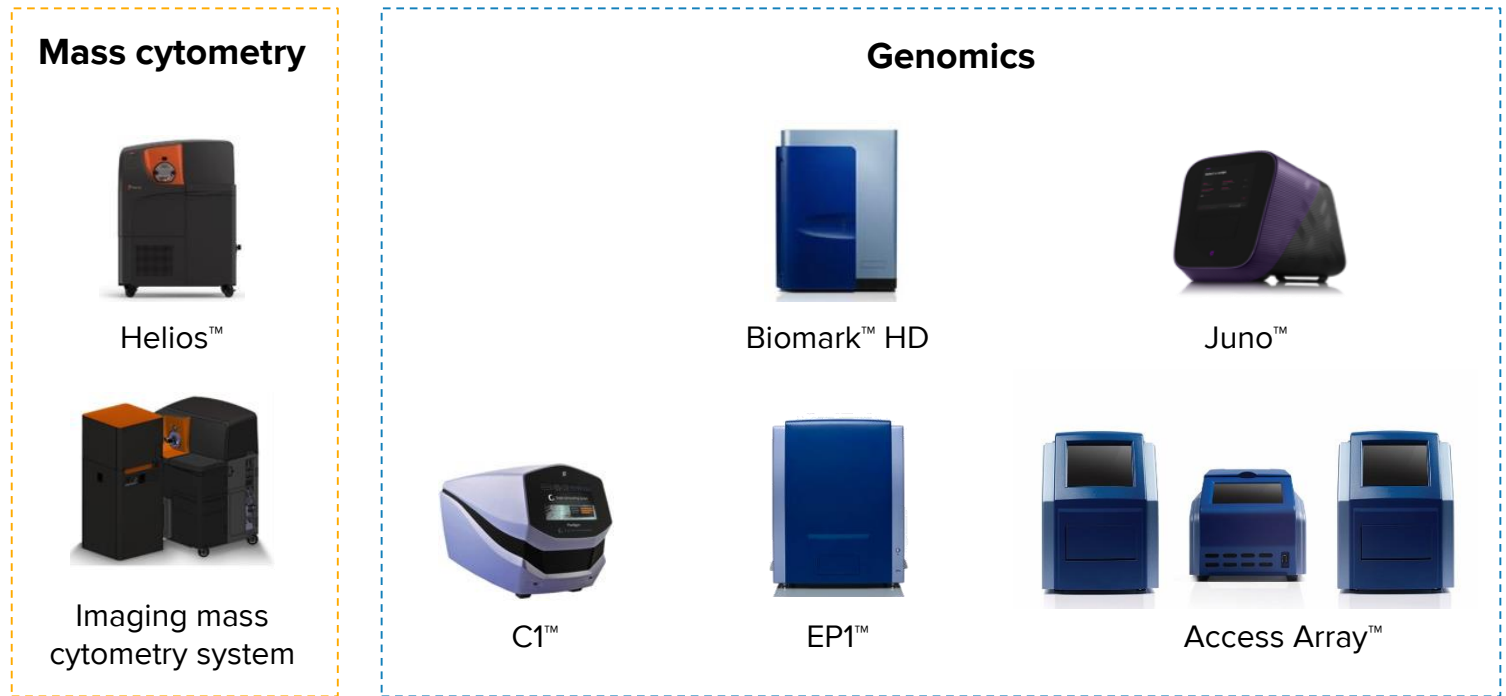
- United States
- Europe
- Asia-Pacific
- Other

Q2 2017 financial guidance

Financial guidance, (in millions)	Expected results for Q2 2017
Total revenue	\$22.0 to \$24.0
GAAP operating expenses	28.0 to 29.0
Non-GAAP operating expenses (a)	24.5 to 25.5
Total cash outflow	7.5 to 8.5

(a) Our estimates of forward-looking non-GAAP operating expenses exclude estimates for stock-based compensation expense, 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. For purposes of our calculations herein, we have excluded stock-based compensation expenses of approximately \$2.5m, and depreciation and amortization expenses of approximately \$1.1m.

Active installed base and pull-through



	Mass Cytometry	C1	Biomark HD and EP1	Juno and Access Array
Active installed base (a)	160	365	585	230
Pull-through (b)	\$50,000 to \$60,000	\$10,000 to \$15,000	\$33,000 to \$38,000	\$25,000 to \$30,000

(a) Approximate active installed base as of December 31, 2016

(b) Projected annualized consumables pull-through per active instrument per year for 2017

Appendix

Selected financial information

Statement of operations data, Non-GAAP (in millions)	Q1 2017	Q1 2016
Total revenue	\$25.5	\$29.0
<i>Year-over-year growth</i>	-12%	
<i>Quarter-over-quarter growth</i>	+2%	
Loss from operations (non-GAAP)	(10.4)	(10.9)
Net loss (non-GAAP)	(9.6)	(11.5)
Net loss per share, basic and diluted (non-GAAP) (a)	(0.33)	(0.40)

Statement of operations data, GAAP (in millions)	Q1 2017	Q1 2016
Total revenue	\$25.5	\$29.0
Loss from operations (GAAP)	(17.5)	(18.9)
Net loss (GAAP)	(17.2)	(19.9)
Net loss per share, basic and diluted (GAAP)	(0.59)	(0.69)

Balance sheet data, (in millions)	as of Mar. 31, 2017	as of Dec. 31, 2016
Cash, cash equivalents, and short and long-term investments	\$50.3	\$59.4
Total long-term debt	202.5	

(a) On November 22, 2016, Fluidigm adopted a Tax Benefit Preservation Plan. Please refer to the appendix for additional detail.

Reconciliation of GAAP to non-GAAP annual product margins

(In thousands)

	Year Ended December 31,			
	2016	2015	2014	2013
Product margin (GAAP)	\$ 47,893	\$ 59,139	\$ 67,560	\$ 46,651
Amortization of developed technology (a)	11,200	11,200	9,800	0
Depreciation and amortization (d)	2,211	837	919	765
Loss on disposal of property and equipment	-	-	31	8
Non-cash charge fro sale of inventory revalued at the date of acquisition	-	-	856	0
Stock-based compensation expense (d)	1,347	1,822	1,584	610
Product margin (Non-GAAP)	<u>\$ 62,651</u>	<u>\$ 72,998</u>	<u>\$ 80,750</u>	<u>\$ 48,034</u>
Product margin percentage (GAAP)	53.8%	57.9%	63.1%	71.6%
Product margin percentage (Non-GAAP)	70.4%	71.5%	75.4%	73.7%

(a) Represents amortization of developed technology in connection with the DVS acquisition

(d) represents expense associated with cost of product revenue

Reconciliation of GAAP to non-GAAP Q1 product margins

	Three Months Ended March 31,	
	2017	2016
Loss from operations (GAAP)	\$ (17,536)	\$ (18,869)
Stock-based compensation expense	2,446	3,717
Amortization of developed technology (a)	2,800	2,800
Depreciation and amortization (e)	1,871	1,464
Loss on disposal of property and equipment (e)	-	7
Loss from operations (Non-GAAP)	<u>\$ (10,419)</u>	<u>\$ (10,881)</u>

(a) Represents amortization of developed technology in connection with the DVS acquisition

(e) Represents expense associated with cost of product revenue

Reconciliation of GAAP to non-GAAP net loss and net loss per share

	Three Months Ended March 31,	
	2017	2016
Net loss (GAAP)	\$ (17,202)	\$ (19,884)
Stock-based compensation expense	2,446	3,717
Amortization of developed technology (a)	2,800	2,800
Interest expense (b)	1,455	1,453
Depreciation and amortization	1,871	1,464
Benefit from acquisition related income taxes (c)	(1,003)	(1,018)
Loss on disposal of property and equipment	-	7
Net loss (Non-GAAP)	<u>\$ (9,633)</u>	<u>\$ (11,461)</u>
Shares used in net loss per share calculation - basic and diluted (GAAP and Non-GAAP)	<u>29,239</u>	<u>28,863</u>
Net loss per share - basic and diluted (GAAP)	<u>\$ (0.59)</u>	<u>\$ (0.69)</u>
Net loss per share - basic and diluted (Non-GAAP)	<u>\$ (0.33)</u>	<u>\$ (0.40)</u>

(a) Represents amortization of developed technology in connection with the DVS acquisition

(b) Represents interest expense on Senior Convertible Notes

(c) Represents the tax impact on the purchase of intangible assets in connection with the DVS acquisition

Reconciliation of GAAP to non-GAAP net loss from operations

	Three Months Ended March 31,	
	2017	2016
Operating expenses (GAAP)	\$ 31,100	\$ 35,887
Stock-based compensation expense (e)	(2,106)	(3,339)
Depreciation and amortization (e)	(1,320)	(925)
Loss on disposal of property and equipment (e)	-	(7)
Operating expenses (Non-GAAP)	<u>\$ 27,674</u>	<u>\$ 31,616</u>

(e) Represents expense associated with research and development, selling, general and administrative activities

Tax benefit preservation plan

On November 22, 2016, Fluidigm Corporation adopted a plan, known as a Tax Benefit Preservation Plan, designed to preserve the significant potential long-term tax benefit associated with Fluidigm's net operating loss carryforwards.

As of December 31, 2016, Fluidigm had net operating losses for United States federal income tax purposes totaling approximately \$376.0 million. Pursuant to U.S. federal income tax rules, Fluidigm's use of those net operating losses to offset future taxable income could be substantially limited if Fluidigm experiences an "ownership change" as contemplated in Section 382 of the Internal Revenue Code. In general, an "ownership change" occurs under Section 382 if a stockholder or group of stockholders that is deemed to own more than five percent (5.0%) of a company's common stock increases its ownership percentage by more than 50 percentage points over its lowest ownership percentage during a rolling three-year period.

Based on the Tax Benefit Preservation Plan, any person or group that acquires beneficial ownership of 4.99% or more of Fluidigm's common stock without the approval of its board of directors would be subject to significant dilution in that person's or group's ownership interest in Fluidigm. Stockholders who currently beneficially own 4.99% or more of the outstanding shares of Fluidigm's common stock will not trigger the preferred share purchase rights unless they acquire beneficial ownership of additional shares equal to 0.10% or more of the common shares then outstanding.



FLUIDIGM®