Investor Presentation

February 28, 2023

Founded in 2011 | Located in Los Angeles, CA | NASDAQ:FLGT

Disclaimer

Forward-Looking Statements and Market Data

This presentation contains forward-looking statements, which are statements other than those of historical facts and which represent the estimates and expectations of Fulgent Genetics, Inc. (the “Company”) about future events based on current views and assumptions. Examples of forward-looking statements made in this presentation include, among others, those related to long-term upside or value, management of risk, anticipated growth and positioning, addressable market estimates, the Company’s mission, vision and strategies, the success of its business model and strategy, anticipated future revenue and guidance, evaluations and judgments regarding the Company’s business, products, technologies, competitive landscape, scalability, plans regarding development and launch of potential future products, and any businesses the Company may seek to acquire or has acquired or has invested in or may seek to invest in, including statements regarding Fulgent Pharma Holdings, Inc. (“Fulgent Pharma”), Inform Diagnostics, CSI Laboratories, Helio Health, Spatial Genomics, and any potential synergies, or transformation of the Company’s business, long-term visions and strategies, included, with respect to Fulgent Pharma, those designated to create a vertically integrated solution for cancer care, the clinical development of Fulgent Pharma’s pipeline and related statements and assumptions regarding development timelines, any potentially accelerated pathway for regulatory approval, the potential safety and efficacy of the nanodrug delivery platform and any related therapeutic candidates, the potential market size for these candidates and platforms and the value of available data, including genomic data and guidance regarding the Company’s future performance and results of operations. The Company’s views and assumptions on which these forward-looking statements are based may prove to be incorrect. As a result, matters discussed in any forward-looking statements are subject to risks, uncertainties and changes in circumstances that may cause actual results to differ materially from those discussed or implied by any forward-looking statements. Important factors that could cause actual results to differ materially from those implied by forward-looking statements are disclosed under “Risk Factors” and “Management's Discussion and Analysis of Financial Condition and Results of Operations” in the Company’s reports filed with the Securities and Exchange Commission ("SEC"), including its annual report on Form 10-K filed on February 28, 2022, and other reports it files from time to time. Because of these factors, you should not rely upon forward-looking statements as predictions of future events. The forward-looking statements in this presentation are made only as of the date hereof, and, except as required by law, the Company assumes no obligation to update any forward-looking statements in the future. The company’s reports filed with the SEC, including its annual report on Form 10-K for the year ended December 31, 2021 filed with the SEC on February 28, 2022 and the other reports it files from time to time, including subsequently filed quarterly and current reports, are made available on the company’s website upon their filing with the SEC. These reports contain more information about the company, its business and the risks affecting its business, as well as its results of operations for the periods covered by the financial results included in this presentation.

This presentation also includes market data and forecasts with respect to the industry in which the Company operates. In some cases, the Company relies upon and refers to market data and certain industry forecasts that have been obtained from third-party surveys, market research, consultant surveys, publicly available information and industry publications that the Company believes to be reliable. These data and estimates involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates.

Non-GAAP Financial Measures

This presentation contains certain supplemental financial measures that are not calculated pursuant to U.S. generally accepted accounting principles (“GAAP”). These non-GAAP measures are in addition to, not a substitute for or superior to, measures of financial performance prepared in accordance with GAAP. A reconciliation of non-GAAP measures to GAAP measures is contained in this presentation.

Leadership Team

Ming Hsieh
Chief Executive Officer

Experienced operational leader, entrepreneur and philanthropist

Previously CEO, President, and Chairman of Cogent Systems

Member of the National Academy of Engineering; Fellow of the National Academy of Inventors; Trustee of USC

Paul Kim
Chief Financial Officer

Experienced financial leader and Certified Public Accountant

Previously CFO of Cogent Systems; sold to 3M for $943M in 2010

B.A. in Economics from University of California at Berkeley

Dr. Harry Gao
Lab Director and Chief Scientific Officer

Previously Lab Director at City of Hope

Clinical molecular genetics training fellowship and post-doctoral fellowship at Harvard Medical School

M.S. in Immunology, and M.D. and Ph.D. in Microbiology, Immunology, and Medical Genetics

James Xie
Chief Operating Officer

Responsible for managing all global operations, product vision and product engineering

Served as an SVP of Cogent

B.A. in Engineering, M.S. in Industrial Engineering and an M.S. in Computer Science

Brandon Perthuis
Chief Commercial Officer

Extensive experience leading genetic testing commercialization programs since 2003

Previously VP of Sales and Marketing of the Medical Genetics Laboratory at Baylor College of Medicine

Prior to Baylor, held senior roles at PerkinElmer and Spectral Genomics

Dr. Lawrence Weiss
Chief Medical Officer

Esteemed background in molecular science and pathology

Most recently Chief Medical Officer at NeoGenomics; prior senior role at Clarient.

Chairman Emeritus of Pathology at City of Hope National Medical Center

Dr. Ray Yin
President, Pharma

Founder & CEO, ANP Technologies, Inc.

Former Team Leader of Nanobiotechnology for Chem/Bio Defense, U.S. Army Research Laboratory

Holder of 46 drug delivery/detection patents

About Fulgent

We are a premier global, technology-based genetic testing company focused on transforming patient care in oncology, infectious and rare diseases, and reproductive health.

Mission

Develop flexible and affordable diagnostics and therapeutics that improve the everyday lives of those around us.

Core Values

- Innovation
- Customer Service and Commitment
- Quality and Efficiency
- Our People

Strategy

- Leverage our proprietary technology platform for broad application
- Further clinical/regulatory program for Pharma
- Operational excellence
- Disciplined M&A

Strategic Vision – A One-Stop Solution for Cancer Care

fulgent VISION

To build a vertically integrated solution to combat cancer

early detection | clinical diagnostics | post treatment monitoring | drug discovery and cancer treatment

fulgent

Leading Genetic Testing Company Offering Tech-Enabled Diagnostic Solutions

Nano-Drug Delivery Platform

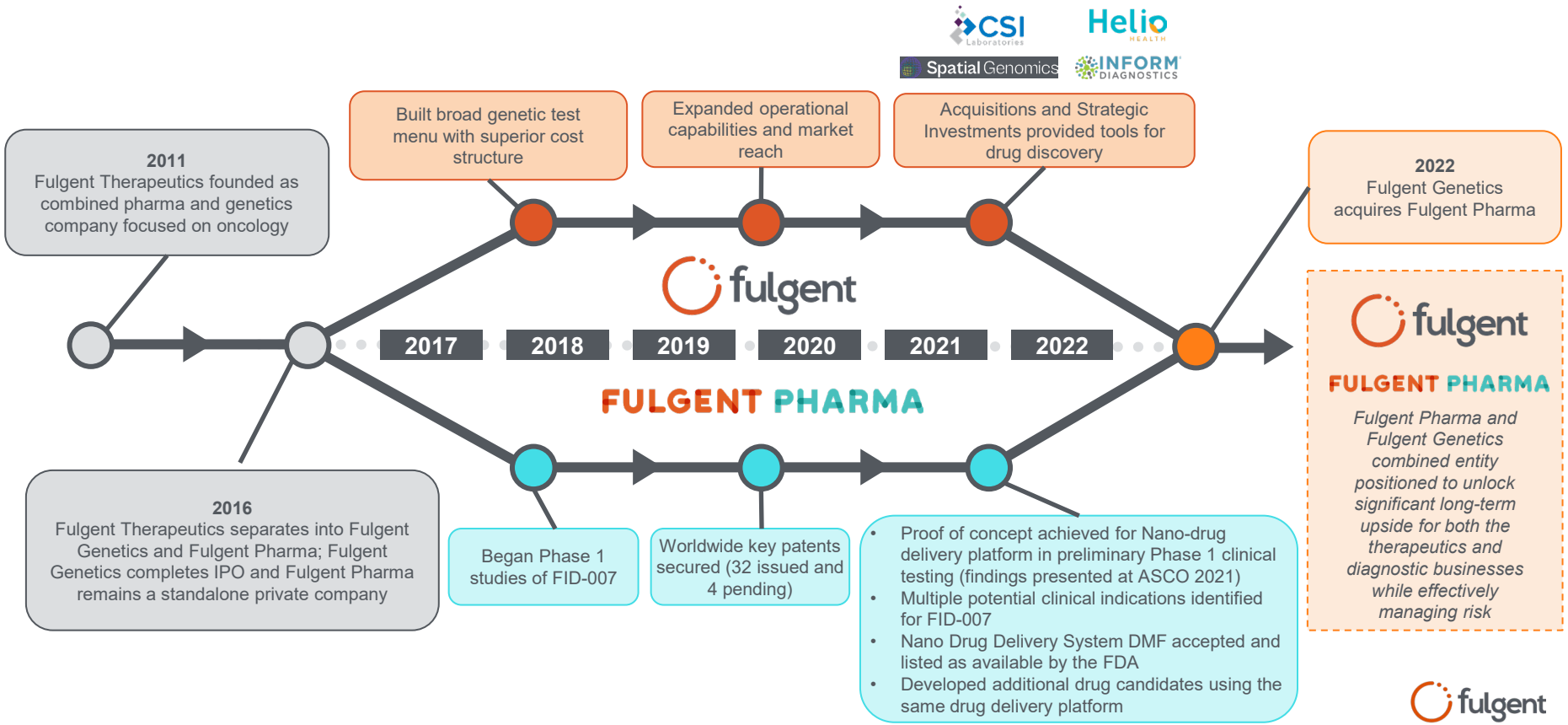
FULGENT PHARMA

Exciting Cancer Therapeutic Opportunity Realizing Precision Medicine Potential

Therapeutic and Diagnostic Entity Providing Comprehensive Solutions Across the Cancer Care Continuum

- Vertically integrated “one-stop” solution across the healthcare chain following the CSI, Inform Diagnostics, and Pharma acquisitions
- Proprietary nano drug delivery technology platform serves as an underpinning technology between diagnostic and pharm to help create a more sustainable and profitable business model in precision medicine for years to come
- Addition of a talented scientific team creates a strong synergy and competitive advantage that may be leveraged across the combined business
- Potential near-term opportunity includes shortened 505(b)(2) drug development and commercialization timelines and potential long-term opportunity leverages large data insights and novel analytical tools from diagnostics business to enable additional precision medicine pipeline through organic or partnered development strategies
- Commitment to continue growing diagnostic and therapeutic opportunities through organic investments and M&A
- Seasoned management team along with strong cash position allow Fulgent to enter therapeutic opportunities while managing risk

History of Fulgent



Long-Term Vision: Fulgent Continuum of Care

Diagnosis

Therapy

Database + Drug Discovery + Patient Care

fulgent

- Transforms from a service company to a combined diagnostic and therapeutic company focused on precision medicine
- Large oncology market opportunity
- Careful pipeline management will responsibly engage therapeutic opportunities while managing potential risks
- Valuable, diverse assets and future sustainable revenue and margins

FULGENT PHARMA

- Well-funded by diagnostics to advance H&N therapy trials and commercialization process
- Genomics data accelerates pipeline therapeutics development, e.g. spatial biology for tumor micro-environment profiling
- Long-term opportunity to leverage data insights from diagnostics to enable precision medicine through proprietary or partnered development strategies
- Manufacturing capability to aid drug development

DIAGNOSTICS

Positioned for Growth

$68M
Q4 Revenue

+97%
Q4 YoY Core Revenue Increase

18,400+ GENES | 900+ PANELS
CUSTOMIZABLE OFFERINGS

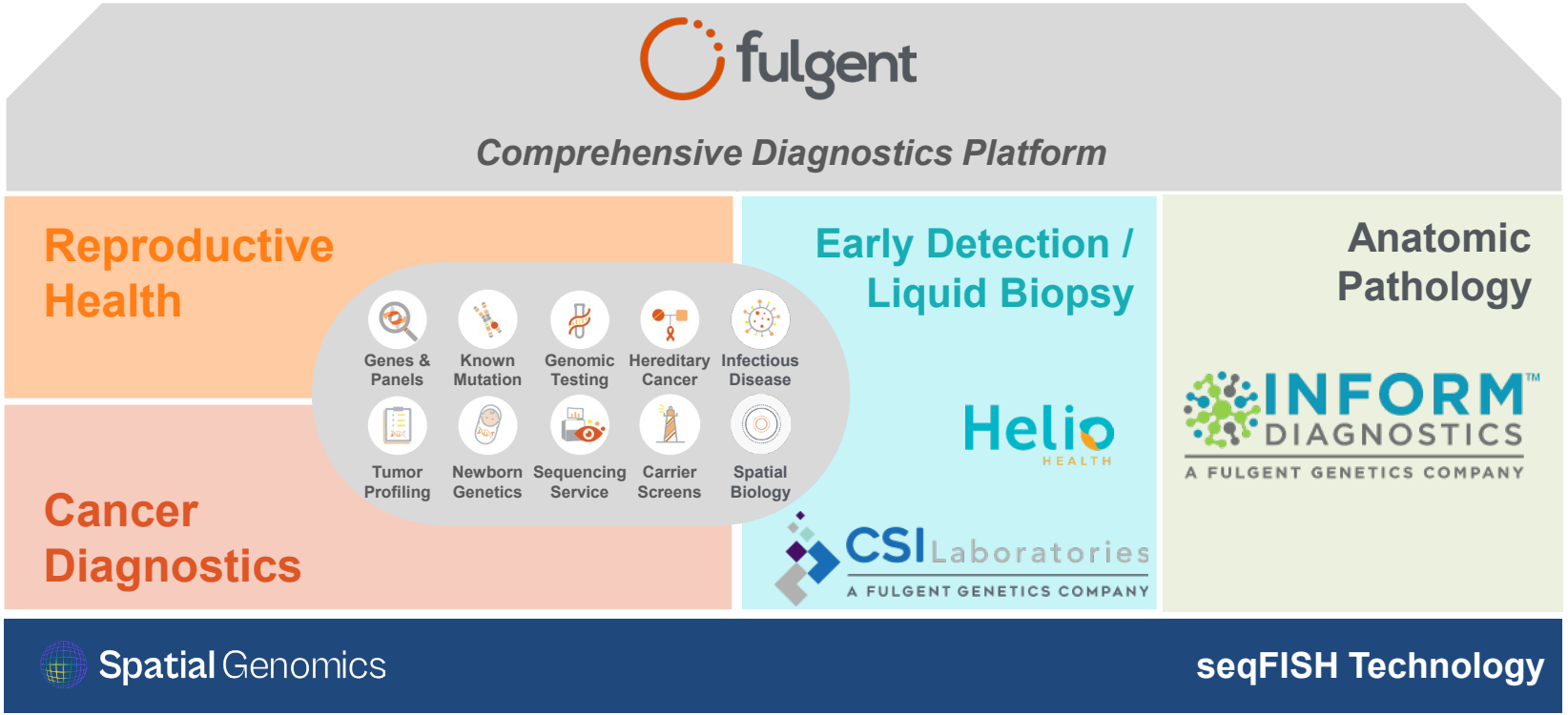
1 Proprietary technology platform allows for rapid scaling of a **broad, flexible test menu**

2 **Next-generation sequencing (NGS)** platform complemented with growing portfolio of **emerging testing technologies** with a focus on oncology

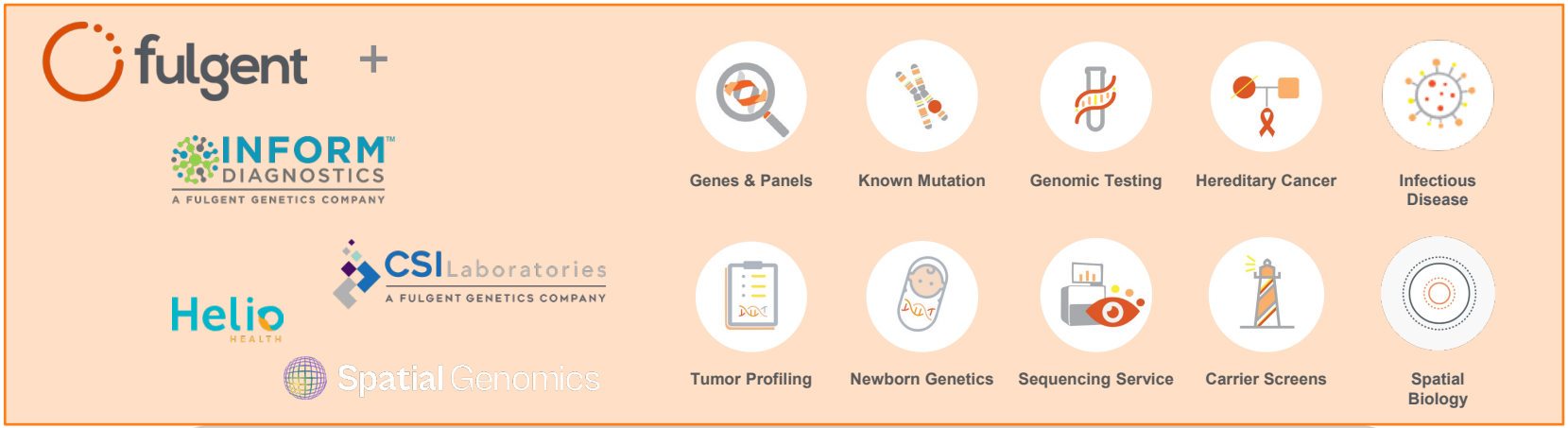
3 Well-positioned to execute on a growth strategy that includes **organic and inorganic initiatives,** including:

- Transformational acquisition of **Inform Diagnostics**
- Ramping of **CSI Labs**
- Scaling partnerships – **Helio Genomics and Spatial Genomics**
- Potential **future acquisitions** with a strategy of short- and long-term ROI, tangible synergies, and efficient capital deployment

Building Diagnostics Platform and Capabilities



Target Market Opportunity



Cancer Diagnostics

$80B market[1]

Early Detection / Liquid Biopsy

$18B market[1]

Reproductive Health

$7B market[2]

Pharma Services

$50B market[3]

1) Market sizes sourced from Wall Street equity research
2) Market size sourced from Frost & Sullivan
3) Market size sourced from Research and Markets, April 2022

What Sets Fulgent Diagnostics Apart?

A New Approach to NGS

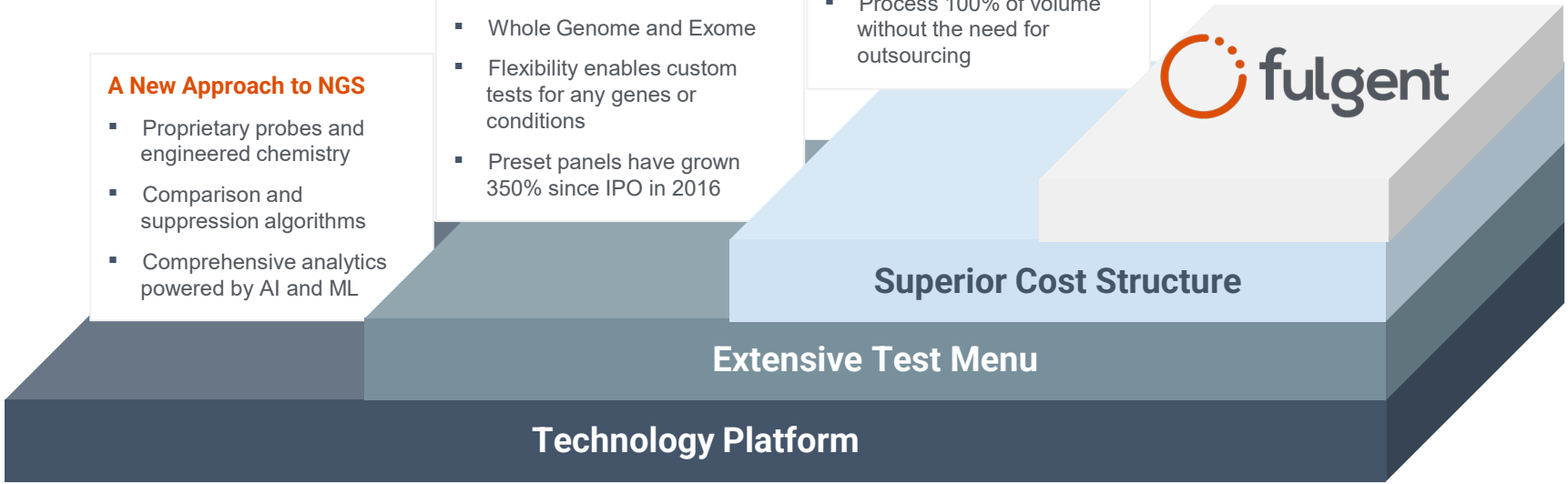
- Proprietary probes and engineered chemistry
- Comparison and suppression algorithms
- Comprehensive analytics powered by AI and ML

Leads to a Broader Test Menu

- 18,400+ single-gene tests (1)
- 900+ panels
- Whole Genome and Exome
- Flexibility enables custom tests for any genes or conditions
- Preset panels have grown 350% since IPO in 2016

And a Better Cost Structure

- Lab efficiencies, automation and scale have translated to a sustainable cost structure
- Partnerships create leverage with sales and marketing
- Process 100% of volume without the need for outsourcing



1) Represents genes covered by single-gene tests.

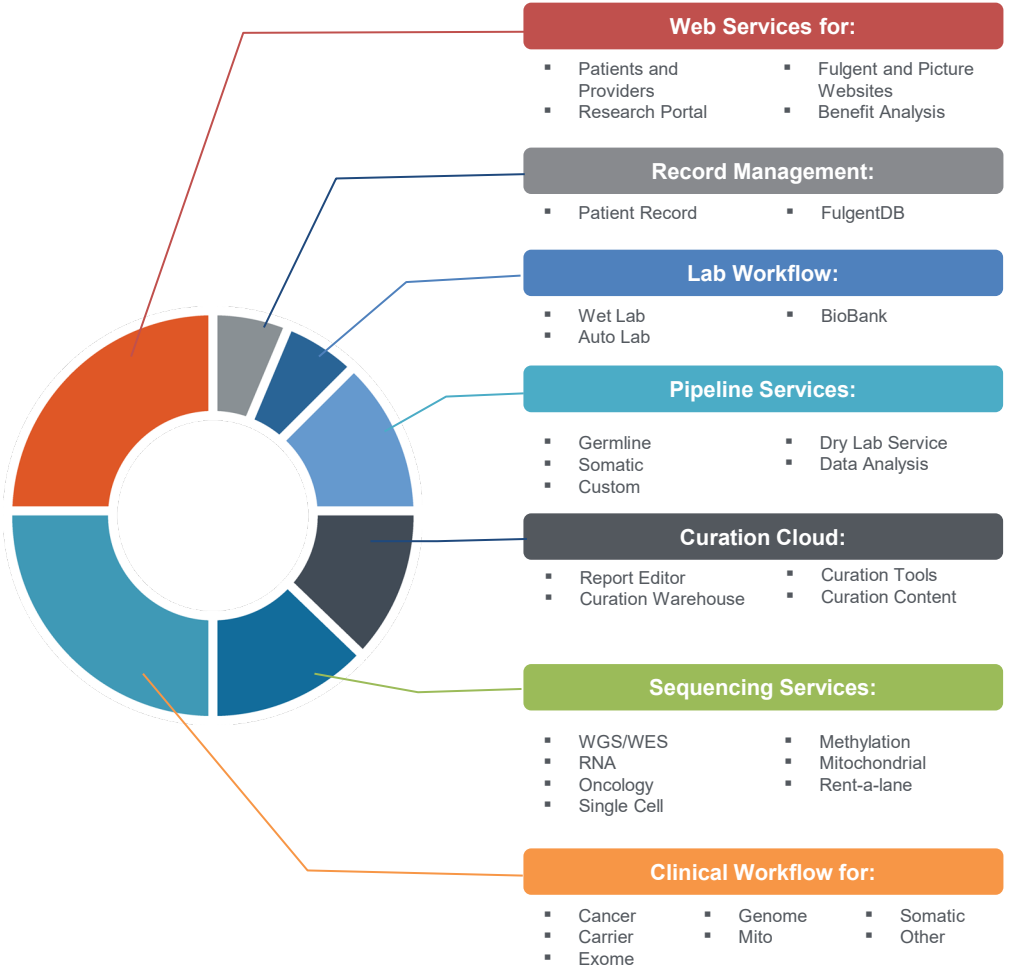
Proprietary Technology Platform

Differentiated Technology...

- Engineered genetic biochemistry, including reagents and probes
- Data suppression and comparison algorithms
- Adaptive learning software
- Automated reporting

...Provides a Multitude of Advantages

- Broad test menu
- Ability to rapidly develop and launch new tests
- Customizable test offerings
- Lower costs per billable test
- High efficiency



Broad Capabilities

Next Generation Sequencing Opportunities

Recent Traction with:

- Hereditary Cancer
- Cardiovascular Genetics
- Reproductive Health
- Neurodegenerative Genetics

Newly launched pharmacogenetic test

Aggressively expanding sales and commercial organization

Specialized Oncology Testing

Wide Array of Technologies

Services Include:

- Flow cytometry
- Cytogenetic analysis
- Fluorescence in-situ hybridization (FISH)
- Immunohistochemistry
- Molecular genetics
- Consultations in hematopathology and surgical pathology
- NGS

Comprehensive Anatomic Pathology Services

Broad Capabilities

- Breast pathology
- Gastrointestinal pathology
- Dermatopathology
- Urologic pathology
- Neuropathology
- Hematopathology

Managed care contract network and **physician relationships** leveraged to provide diagnostic products and services **complementary to Fulgent's portfolio**

Expansive geographic presence with several **CLIA-licensed** laboratories across the United States

Technology/Platform Case Study: COVID-19

Fulgent deployed its technology platform to rapidly respond to the COVID-19 Pandemic, scaling operations to provide tests with reliable results and rapid turnaround time

Next Generation Sequencing for COVID-19

- **Research driven platform** worked with local and federal government on genomic studies
- **CDC contract** awarded to Fulgent, worth up to $47M to study SARS-CoV-2 using Fulgent's NGS platform
- **Capacity** of 10,000 NGS tests per day
- **Used** to identify new strains and mutations

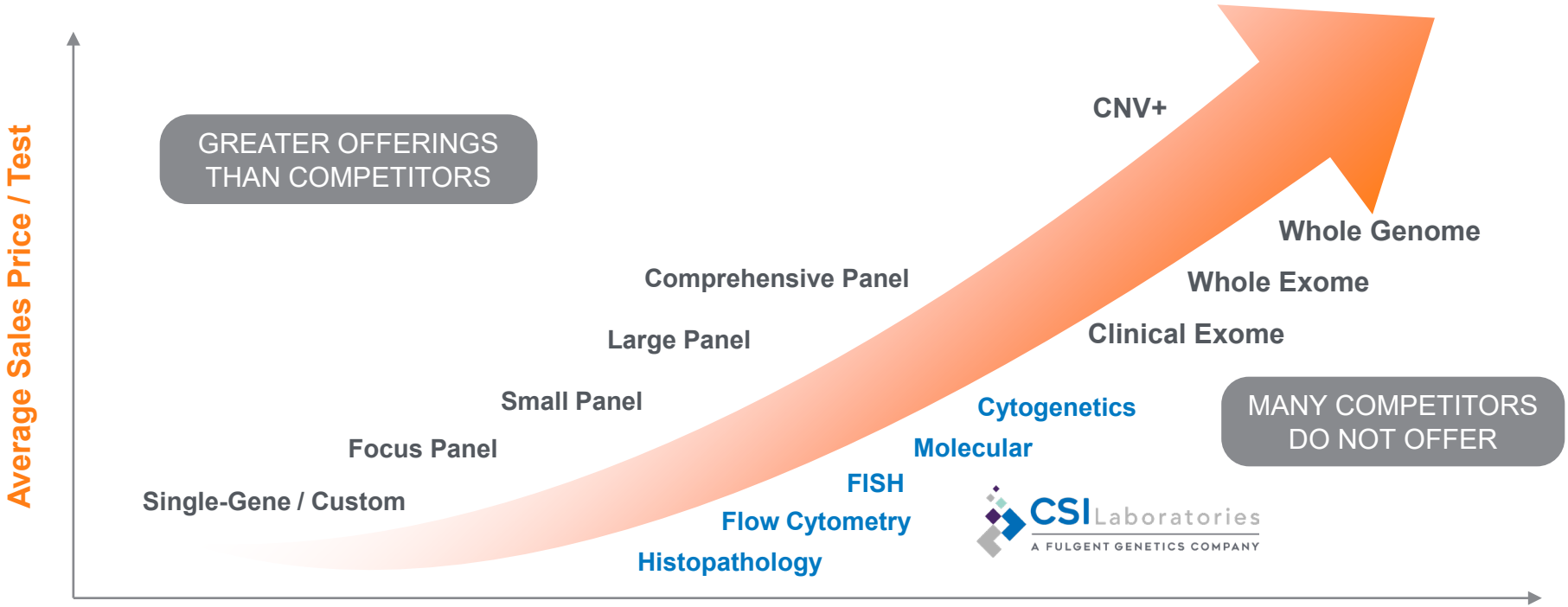
Commercialized COVID-19 Testing
Primarily RT-PCR Based Testing

Contracts with:
- School systems
- Nursing homes
- Athletic organizations
- Specialty health clinics
- Travel organizations
- Government agencies

Offered through:
- Drive-through sites
- Picture at-home kits
- Managed on-site programs

Result: 19.3M COVID-19 tests delivered between 2020-2022, generating >$1.7B in revenue for Fulgent

Our Menu is Scalable and Affordable to Customers



NGS Testing – Offerings

Single Gene

18,400+ Genes

Disease Panels

900+ Panels
Customizable Panels

Exome Tests

Clinical Exome (4,500+ Genes)
Whole Exome

Cancer Panels

Focus (30 Genes)
Comprehensive (127 Genes)
Somatic

Known Mutation

Site-Specific Testing

Repeat Expansion

19 Panels

NGS Testing – Germline Oncology Test Menu

Oncology Testing Platforms

FISH

- Expansive heme and solid tumor menu
- STAT testing available - PML/RARA <1 day TAT
- CD138 cell enrichment for PCM
- 3-5 Day turnaround time

Histology

- 225+ stains
- Platform agnostic
  - Roche, Agilent and Leica IHC
- Three levels of service – Tech, Global, Consultative
- PD-L1 - Various IVD platforms and indications
- <1-2 Day turnaround time

Cytogenetics

- Oncology and constitutional
- >20% abnormality detection rate
- Mitogen stimulation/dual culture
- DSP30 (detection of B-cell disorders)
- Interleukin 4 for plasma cell myeloma
- Phytohemagglutinin and Interleukin 2 (detection of T-cell disorders)
- Children's Oncology Group approved
- 5-7 Day turnaround time

Flow Cytometry

- 10-color platform
- Comprehensive panel design
- High-sensitivity for paroxysmal nocturnal hemoglobinuria
- Expert analysis and interpretation
- 12-24 Hour turnaround time

Molecular

- Hematology and solid tumor menu
- Extensive single gene menu
- NGS
- 5-7 Day turnaround time [NGS 10-14 Days]

NGS Testing – Panel Deep Dive

Comprehensive Beacon Carrier Screening Tests

Beacon ACOG / ACMG Guidelines Panel

The ACOG/ACMG panel screens for common genetic disorders seen in the general population

Gene Count: 6

Beacon Ashkenazi Jewish Panel

The Ashkenazi Jewish carrier screens for pathogenic carrier variants known to cause recessive genetic disorders

Gene Count: 61

Beacon Focus Panel

The Focus Carrier screen is a pan-ethnic screen that looks for pathogenic mutations known to cause autosomal recessive and X-linked disorders

Gene Count: 30

Beacon Expanded Panel

The Expanded Panel screens for more than 400 recessive and X-linked conditions that covers people of all ethnic backgrounds

Gene Count: 427

Beacon787 Panel

One of the largest panels available for those seeking the most comprehensive testing option

Gene Count: 787

fulgent

Beacon Carrier Screening

- NGS of entire genes, not just hotspots
- Deletion and duplication analysis
- Proprietary algorithms for pseudogenes
- TAT: 2 Weeks

NGS Testing – Reproductive Services: PGT-A

PGT-A Can Expand a Patient's Prospects of a Successful Pregnancy

Increased Chance of Pregnancy

Embryos with a normal number of chromosomes have a better chance of resulting in successful pregnancy

Reduced Risk of Miscarriage

Embryos with an abnormal number of chromosomes (aneuploid) typically do not result in successful pregnancy or may result in birth defects

More Confidence in Transferring a Single Embryo

Avoid health risks associated with twin or triplet pregnancies that can occur from multiple embryo implantation

Fewer Number of Embryo Transfer Cycles Needed

Reduce the amount of time to pregnancy and the costs of additional IVF cycles

Preimplantation Genetic Testing for Aneuploidy (PGT-A) can identify potentially abnormal embryos for transfer in IVF, thereby expanding a patient's prospects of a successful pregnancy

Who is PGT-A testing for?	Women 35+	Those who have experienced miscarriages	Those who want to reduce the likelihood of having multiples	Couples experiencing male factor infertility	Those who have experienced IVF failure

NGS Testing – Rapid Whole Genome for Newborns

Newborn Genetic Screening Goes Beyond Standard Newborn Screening

Designed for critically ill infants in the NICU or PICU to rapidly diagnose genetic disorders

- Screens for over 200 health conditions
- Identifies potential health risks before symptoms arise
- Early detection known to have a positive impact
- Simple cheek swab collection for your baby : No pricks, sticks, or tears necessary

Ideal for Infants Experiencing:

- Multiple congenital anomalies
- Inborn errors of metabolism
- Immunodeficiency
- Respiratory distress
- Epilepsy

In a Retrospective Analysis of Diagnostic and Clinical Finding with 35 Acutely Ill Infants (2015):

- 20 out of the 35 infants (57%) received dx
- 13 out of the 20 dx infants (65%) had clinical usefulness for treatment

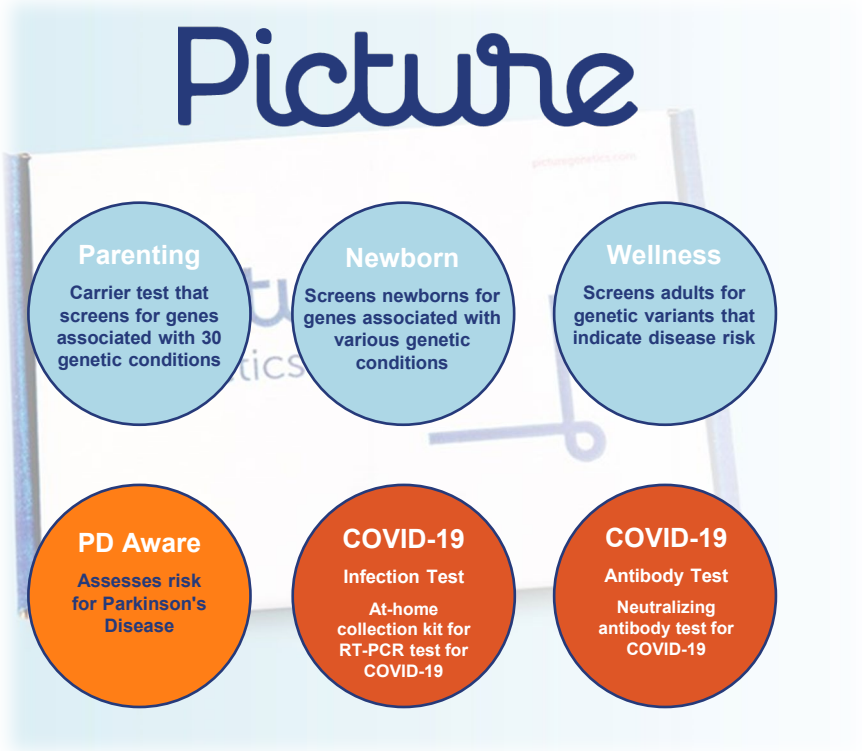
TAT of 7-10 Days

Consumer Initiated Tests – Picture Genetics

Targeting the Large Consumer Market with Picture Genetics

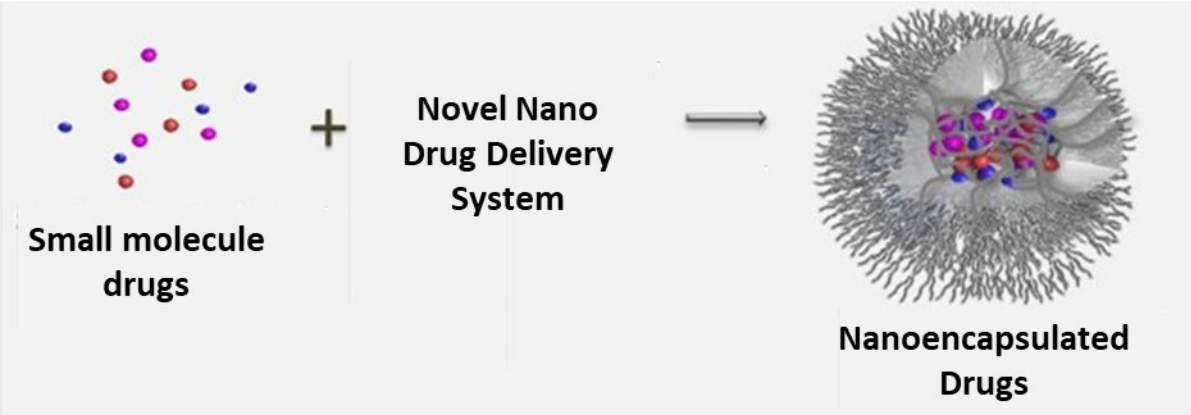
Launched in 2019 with significant growth amid COVID-19

- A consumer-focused offering that merges clinical utility with accuracy of an accredited lab
- Extends Fulgent's NGS capabilities to a broader market
- Validated by **successfully scaling to several million billable tests** performed within months for COVID-19, after receiving an EUA
- Performs a complete sequencing (vs genotyping) analysis for better, more accurate results
- Patient-friendly with easy to use "order from home" model – no doctor visits or insurance necessary, though many tests are eligible for reimbursement
- Full service offering that includes analysis and genetic counseling support



PHARMA

Nano-Drug Delivery Platform Overview



Platform Advantage:
Soluble in both water and various organic solvents and capable of hot melt mixing with APIs

- Many drug candidates in the industry failed during preclinical and clinical development and testing due to poor water solubility
- Nanoencapsulation produces amorphous drug candidates with improved solubility and potentially enhanced absorption, drug PK profiles, safety and efficacy
- Broadly applicable to both IV and oral drug delivery formulations
- Potentially shortened development timeline
- Plug and play drug delivery platform provides multiple shots on goal
- Simple and low-cost production process

FID-007 Program Overview

FID-007 Phase I First in Human Clinical Trial – Preliminary Findings

- Dose levels up to 125 mg/m^2/week with manageable safety profile, without yet reaching MTD
  - Dosing at 160 mg/m^2/week is ongoing
- There is preliminary evidence of anti-tumor activity in heavily pre-treated patients across different tumor types
- Partial clinical data presented at ASCO 2021

FID-007 Phase I Preliminary Highlights (as of 6/10/22):

H&N Cancer

- 100% Disease Control Rate (DCR[1]) and 33% Overall Response Rate (ORR) were observed in 6 heavily treated H&N patients

Ampullary/Pancreatic

- 75% DCR and 50% ORR were seen in 4 heavily treated ampullary and pancreatic patients

Immune Checkpoint Inhibitors (ICIs) Resistant Patients

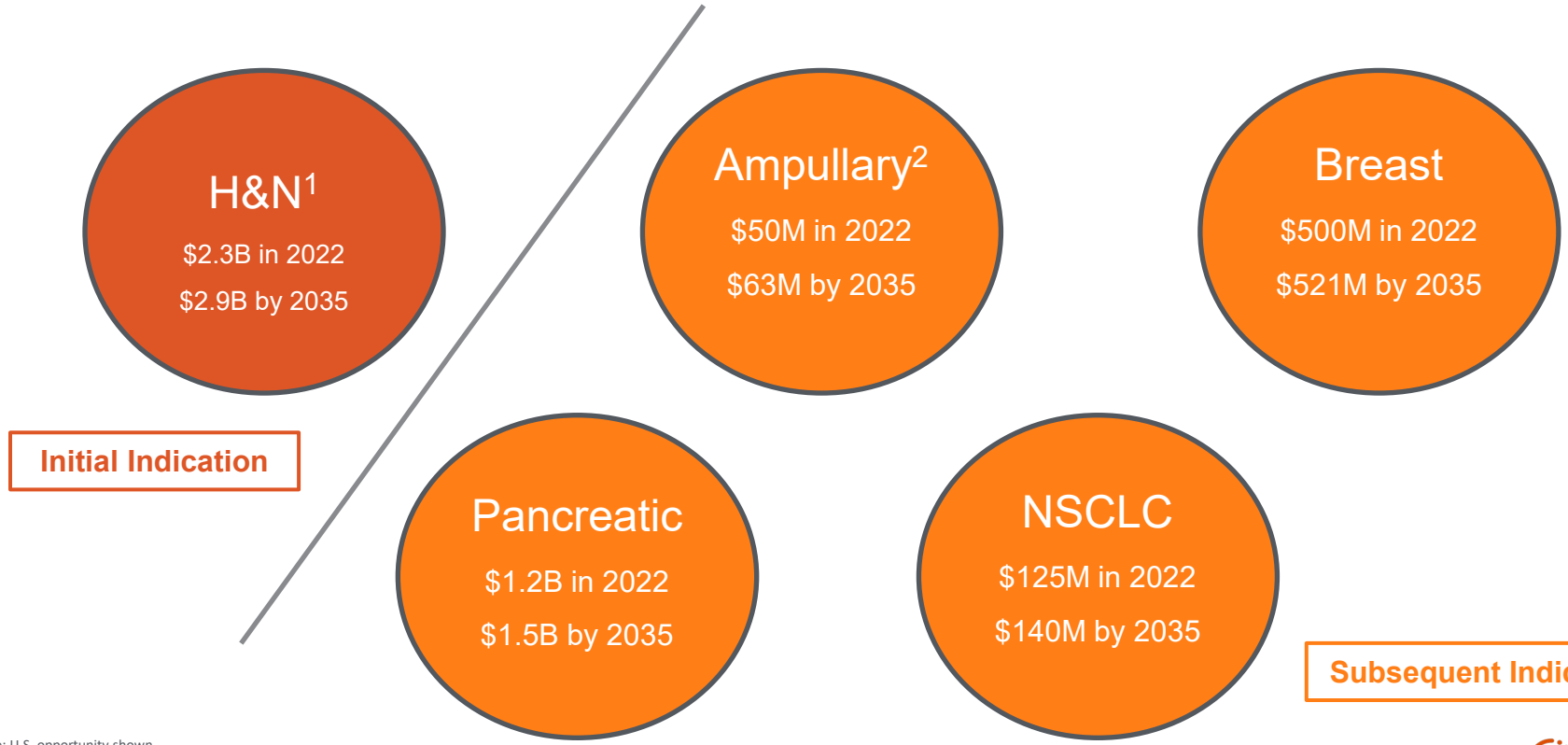
- 67% DCR and 33% ORR were seen in 6 heavily treated patients of different types of cancer with PD-1 or PD-L1 antibody treatment as the last line prior to enrollment in FID-007 trial

Anticipate more data to be published in 2023

Note: all findings are preliminary

1. DCR includes Stable Disease (SD), Partial Response (PR), Complete Response (CR)

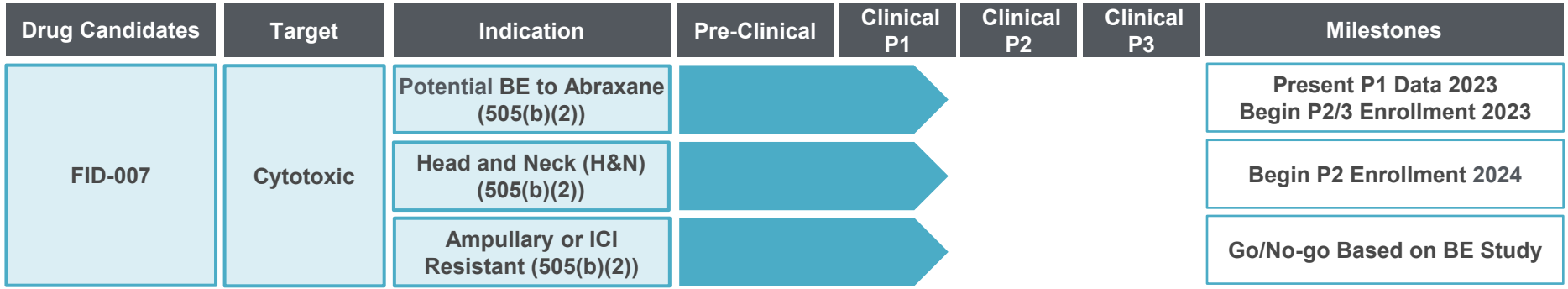
Potential Market Opportunity for FID-007



Note: U.S. opportunity shown
Sources: Evaluate Pharma, Wall Street research, and management pricing expectations
1. H&N market opportunity for both 2nd line and 3rd line therapy
2. Ampullary market opportunity for 2nd line therapy

FID-007 Clinical and Regulatory Plan

- Wholly-owned drug candidate initially focused on Head & Neck (H&N), Pancreatic/Ampullary cancers
  - Seeking initial therapeutic indication for 2nd or 3rd line treatment of H&N cancer
  - Exploring potential ampullary or ICI resistant
- Potential FDA approval strategy uses 505(b)(2) studies, which may shorten clinical trial process and accelerate timeline to commercialization



Additional candidates in preclinical development focused on various cancers

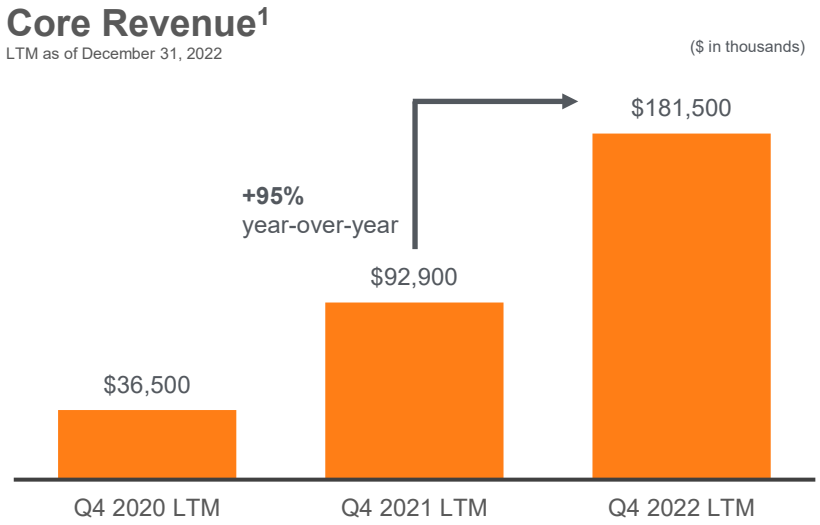
FINANCIALS

Summary Financial Performance

$55M Core Revenue[1] in Q4'22

97% growth year-over-year

$254M LTM Operating Cash Flow as of Q4'22

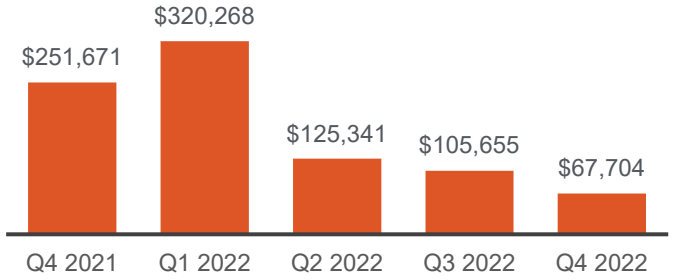


(1) Core Revenue excludes NGS COVID-19 test volume

Financial Performance: Revenue Profile

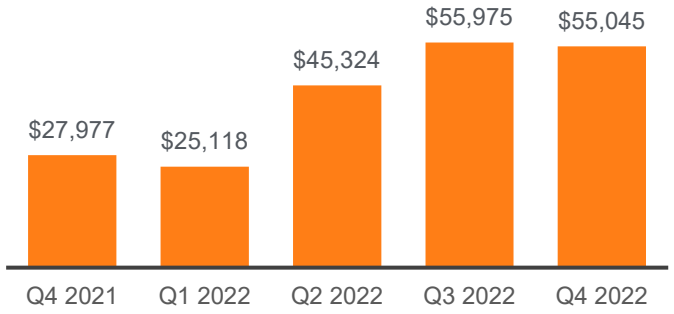
Total Revenue

($ in thousands)



Total Core Revenue[1]

($ in thousands)



(1) Core Revenue excludes NGS COVID-19 test volume

2023 Financial Guidance

	Q1 2023	Full Year 2023
Total Revenue	$56 M -83%y/y *Core + 123% y/y*[1]	$240 M *-61%y/y* *Core + 32% y/y*[1]
GAAP EPS	--	($2.50)
Non-GAAP EPS	--	($1.25)

2023 Revenue does not include any expected COVID-19 testing revenue

Core growth reflects momentum across the business, including precision diagnostics, anatomic pathology, and pharma services

(1) Core Revenue excludes NGS COVID-19 test revenue for more accurate year over year comparison purposes.

Balance Sheet

(in 000's)	December 31, 2021	December 31, 2022	
Assets			
Cash & cash equivalents	$ 164,894	$ 79,506	(1)
Marketable securities	285,605	446,729	(1)
Trade accounts receivable, net	138,912	52,749	
Other current assets	22,549	48,889	
Total current assets	611,960	627,873	
Marketable securities, long-term	485,047	326,648	(1)
Redeemable preferred stock investment	21,965	12,385	
Fixed assets, net	62,287	81,353	
Intangible assets, net	35,914	150,643	
Goodwill	50,897	143,027	
Other long-term assets	10,650	44,124	
Total assets	**$ 1,278,720**	**$ 1,386,053**	
Liabilities and Stockholders' Equity			
Accounts payable	$ 20,494	$ 23,093	
Income tax payable	787	—	
Contract liabilities	14,570	3,199	
Customer deposit	19,806	10,895	
Investment margin loan	15,137	14,999	
Other liabilities	42,046	63,992	
Total liabilities	112,840	116,178	
Stockholders' equity	501,911	486,588	
Accumulated income	656,838	780,097	
Total Fulgent stockholders' equity	1,158,749	1,266,685	
Noncontrolling interest	7,131	3,190	
Total stockholders' equity	1,165,880	1,269,875	
Total liabilities and stockholders' equity	**$ 1,278,720**	**$ 1,386,053**	

(1) $853M in cash and investments.

Non-GAAP Financial Adjustments

(in 000's)	2021				FY	2022				FY
	Q1	Q2	Q3	Q4	2021	Q1	Q2	Q3	Q4	2022
Revenue	$359,429	$153,616	$227,868	$251,671	$992,584	$320,268	$125,341	$105,655	$67,704	$618,968
Cost of revenue	74,075	35,858	43,466	62,134	215,533	77,725	60,065	59,560	54,717	252,067
Gross profit	$285,354	$117,758	$184,402	$189,537	$777,051	$242,543	$65,276	$46,095	$12,987	$366,901
Gross margin	79.4%	76.7%	80.9%	75.3%	78.3%	75.7%	52.1%	43.6%	19.2%	59.3%
Equity-based compensation included in cost of revenue	674	692	962	1,235	3,563	1,465	2,243	2,475	2,521	8,704
Non-GAAP gross profit (excluding equity-based compensation)	$286,028	$118,450	$185,364	$190,772	$780,614	$244,008	$67,519	$48,570	$15,508	$375,605
Non-GAAP gross margin	79.6%	77.1%	81.3%	75.8%	78.6%	76.2%	53.9%	46.0%	22.9%	60.7%
Operating expenses										
R&D	$5,422	$5,312	$6,021	$7,464	$24,219	$5,989	$6,905	$7,507	$8,509	$28,910
S&M	5,008	5,219	6,012	8,200	24,439	7,940	10,866	9,859	10,253	38,918
G&A	8,002	8,329	12,299	22,102	50,732	25,775	30,240	26,266	28,793	111,074
Amortization of intangible assets	0	0	797	911	1,708	906	1,575	2,006	2,010	6,497
Restructuring costs	0	0	0	0	0	0	2,896	105	(26)	2,975
Total operating expenses	18,432	18,860	25,129	38,677	101,098	40,610	52,482	45,743	49,539	188,374
Operating profit (loss)	$266,922	$98,898	$159,273	$150,860	$675,953	$201,933	$12,794	$352	($36,552)	$178,527
Operating margin	74.3%	64.4%	69.9%	59.9%	68.1%	63.1%	10.2%	0.3%	-54.0%	28.8%
Equity-based compensation included in operating expenses	2,288	2,834	3,412	3,785	12,319	4,151	5,787	6,497	7,501	23,936
Acquisition-related cost included in G&A	0	0	0	0	0	1,251	5,158	166	1,359	7,934
Non-GAAP operating profit (loss) (excluding equity-based compensation, amortization, restructuring costs & acquisition-related costs)	$269,884	$102,424	$164,444	$156,791	$693,543	$209,706	$30,453	$11,601	($23,187)	$228,573
Non-GAAP operating margin	75.1%	66.7%	72.2%	62.3%	69.9%	65.5%	24.3%	11.0%	-34.2%	36.9%

THANK YOU

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