



# sema4

Acquiring GeneDx to Strengthen our  
Market-Leading AI-Driven Genomic &  
Clinical Data Platform

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In connection with the proposed Transaction, Sema4 intends to file a preliminary proxy statement on Schedule 14A with the SEC. Following the filing of the definitive proxy statement with the SEC, the definitive proxy statement will be sent to the stockholders of Sema4. Sema4 also will file other documents regarding the proposed transaction with the SEC. Before making any voting decision, investors and security holders of Sema4 are urged to read the proxy statement and all other relevant documents filed or that will be filed with the SEC in connection with the proposed Transaction as they become available because they will contain important information about the proposed Transaction. Investors and security holders will be able to obtain free copies of the proxy statement and all other relevant documents filed or that will be filed with the SEC by Sema4 through the website maintained by the SEC at [www.sec.gov](http://www.sec.gov).

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# sema4 + GeneDx

## Enhancing Our Reach into Health Systems and Pharma

Leading Franchise in Women's Health<sup>1</sup>  
Leading Franchise in Rare Disease<sup>1</sup>  
Accelerated Adoption of our Oncology Portfolio  
Unparalleled capabilities in data<sup>1</sup>

## Increased Scale and Growth

**\$350M in Revenue** (FY22E Pro Forma)<sup>2</sup>  
**30% CAGR** (Long-term)<sup>2</sup>

## Total Acquisition Consideration up to \$623M<sup>3</sup>

\$473M Upfront  
Up to \$150M Revenue Milestones

## Accelerating Profitability

**16% Gross Margin** (FY22 Pro Forma)<sup>2</sup>  
**50% Gross Margin** (FY25 Target)<sup>2</sup>  
**Positive FCF** (by YE25)<sup>2</sup>

**\$200 Million Private Placement by leading investors including** 

<sup>1</sup> Based on Company estimates

<sup>2</sup> Estimated and pro forma results are subject to certain assumptions, risks and uncertainties and assume the business operated as one company beginning January 1, 2022.  
See Disclaimer on slide 2.

<sup>3</sup> Based on the closing price of SMFR common stock of \$4.04 on January 14, 2022

# sema4 + GeneDx

## Deal Rationale

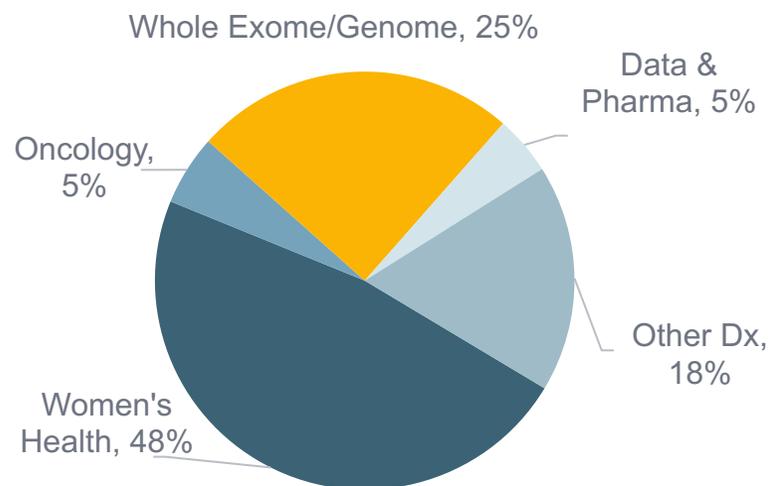
1. **Health Systems:** Accelerating uptake of the clinical exome into our core channels
2. **Data:** Leveraging GeneDx's market-leading exome database with Sema4's Centrellis<sup>®</sup> platform
3. **Scale:** Market leader in Women's Health and market leader in Rare Disease
4. **Synergy:** Accelerating our path to profitability

Clinical NGS  
80%+ of 2022E pro forma revenue

Clinical Exomes  
30% of revenue growing to 80%  
next few years<sup>2</sup>

Managing 46+ petabytes of data  
growing at an accelerated pace

## 2022E Pro Forma Revenue<sup>1</sup>



Our Health System Partners  
serve 20M+ patients

 NorthShore  
University HealthSystem

 Avera

 Advent Health

  
Mount  
Sinai

# Who is GeneDx?

<p><b>Product:</b> #1 rare disorders franchise with industry-leading clinical exome sequencing<sup>1</sup></p>	<p><b>300K+</b> Clinical exomes sequenced – <u>most by any company</u><sup>1</sup></p>	<p><b>70%</b> market share among clinicians ordering <b>exomes</b><sup>1</sup></p>	<p>Definitive diagnosis in <b>20% more</b> cases and <b>27% fewer</b> uncertain findings vs. public data sets<sup>1</sup></p>	
<p><b>Competitive Advantage:</b> Industry-leading curated data asset<sup>1</sup></p>	<p><b>9 years</b> of clinical exome sequencing</p>	<p><b>2.1M</b> Expertly annotated phenotypes<sup>2</sup></p>	<p><b>300</b> Gene discovery publications since 2015<sup>2</sup></p>	<p><b>95%</b> Reduction in interpretation COGS since 2013</p>
<p><b>Talent:</b> Experienced management and engineering team with deep genetics expertise</p>	<p><b>100+</b> MDs / PhDs<sup>3</sup></p>	<p><b>~70</b> Commercial experts in sales, marketing, market access, product, BD<sup>3</sup></p>		<p><b>300</b> Gene discovery publications since 2015<sup>1</sup></p>
<p><b>Relationships:</b> Entrenched relationships with leading hospitals</p>	<p><b>100+</b> U.S. children’s hospitals have contracts with GeneDx</p>	<p><b>\$116M</b> Estimated 2021 revenues<sup>4</sup></p>	<p><b>145K</b> Estimated 2021 test volume</p>	

<sup>1</sup> Company Estimates

<sup>2</sup> Includes NEJM, Nature, and JAMA

<sup>3</sup> As of December 31, 2021

<sup>4</sup> GeneDx’s estimates of its Full Year 2021 revenue are subject to revision, which could be material, as it completes the preparation of its 2021 year-end financial statements.

# A Market-Leading AI-Driven Genomic & Clinical Data Platform

## Generating Data/ Growing Patient Base

- **Sema4:** 288K tests/year, 500K+ genomic profiles
- **GeneDx:** 145K tests/year, 300K+ clinical exomes with 180K+ patient-child trios for deeper insights

## Increasing Scale

- More holistic patient engagement → bigger data
- **Sema4:** 12M patients with de-identified records & managing 46+ petabytes of data
- **GeneDx:** Adding 2.1M expert-curated phenotypes

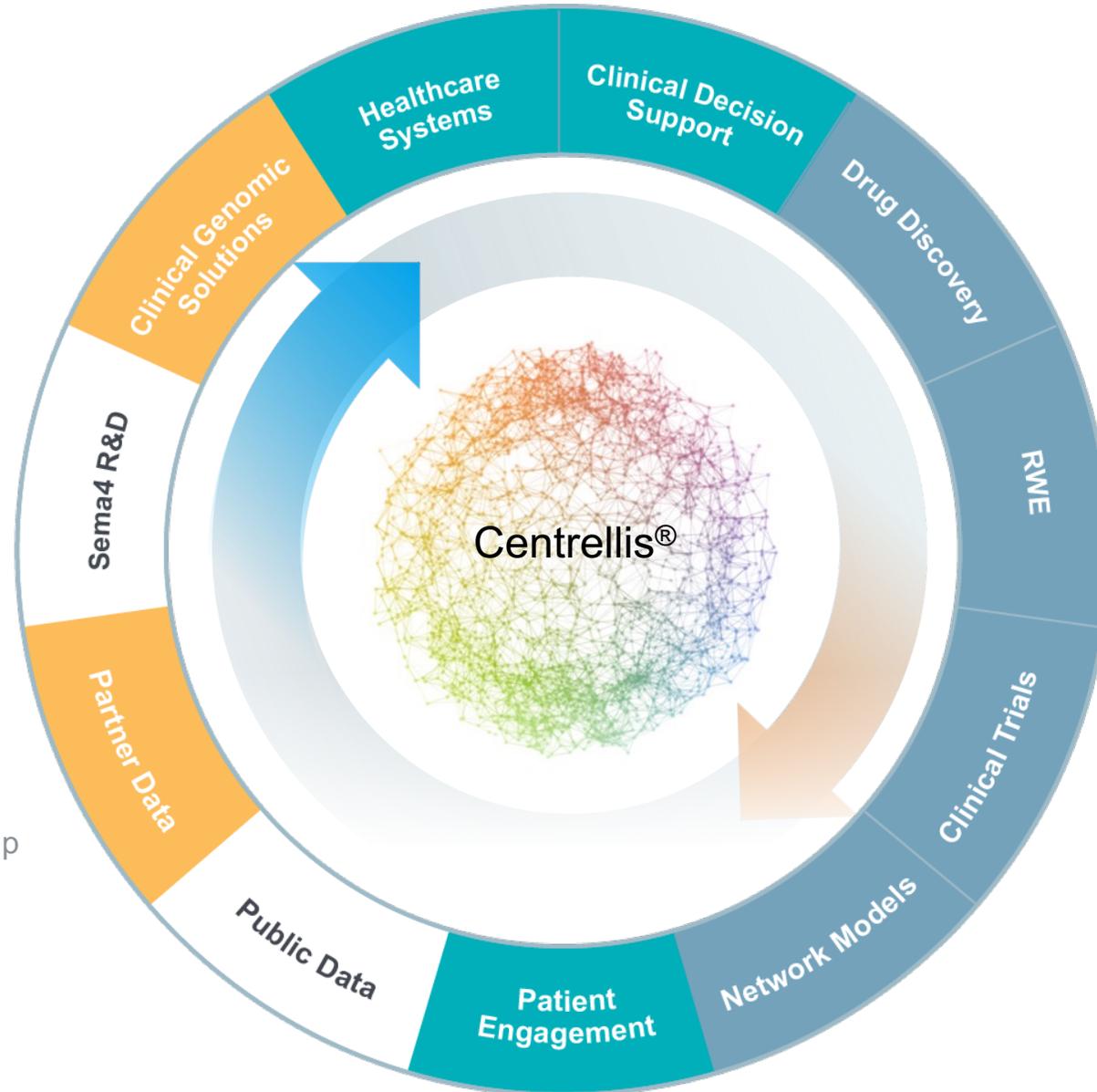
## Delivering Insights

- Platform for delivering differentiated, actionable insights
- Adding >100 new disease-gene relationships published annually



# Enhancing Our Reach into Health Systems & Biopharma

**sema4**  
+  
**GeneDx**



- Health System Dominant Partnership
- Pharma Dominant Partnership
- HS-Pharm Synergistic Partnership



Molecular Profiling and Real-World Evidence

**Merus**

Patient ID and Recruitment



Drug Discovery Collaboration



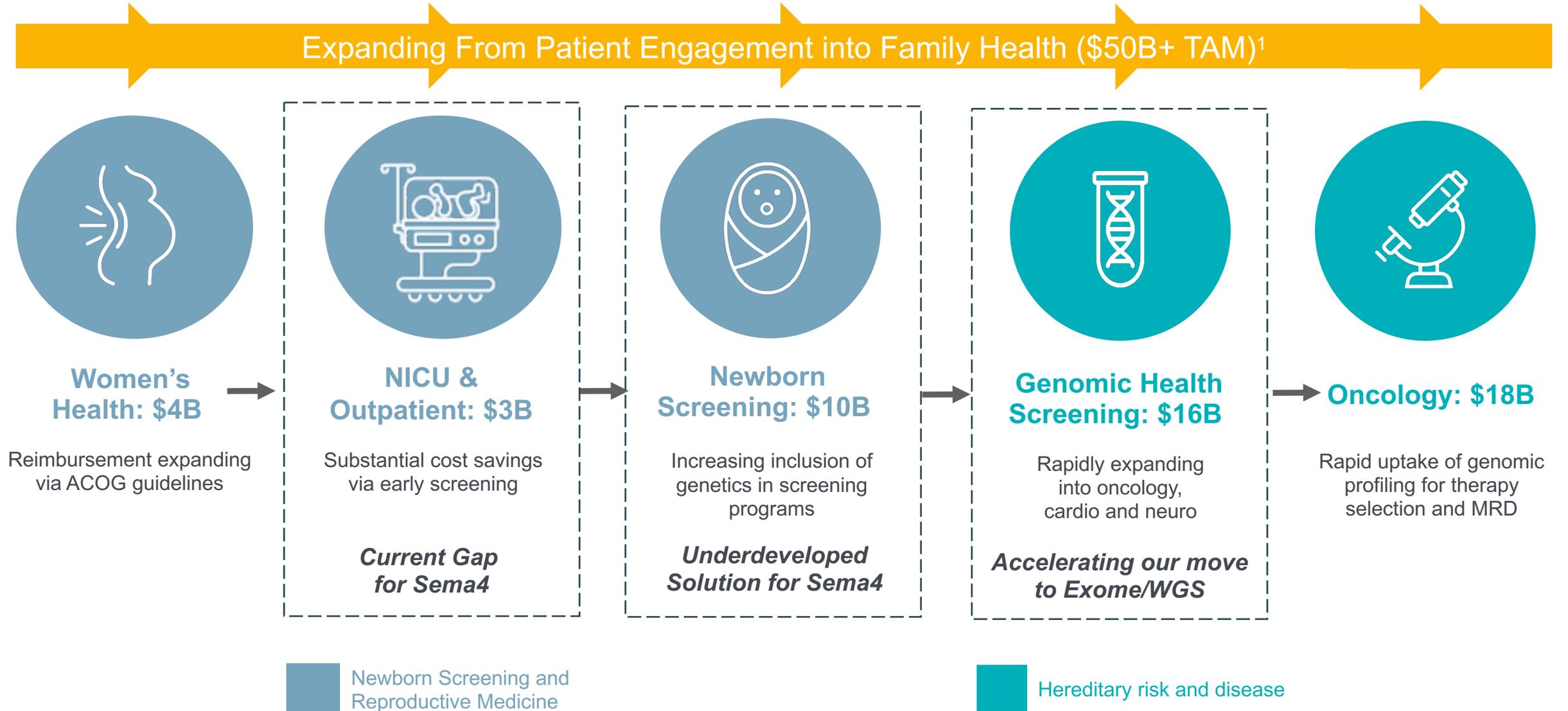
Clinical Trial Match and Recruitment into Trials w/Health System Partners



Precision Medicine Drug Screening Collaboration

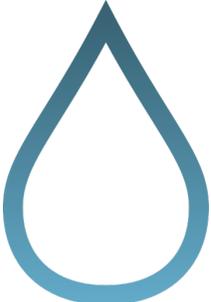
**sema4**

# Broader Portfolio Increases Longitudinal Engagement and Enhances Centrellis®



# Accelerating Our “One Test” Platform with GeneDx's Universal Genomics Chassis

## Sequence Once, Analyze for a Lifetime

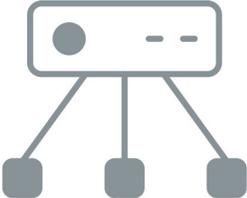


### CAPTURE MAJORITY OF PATIENTS

During initial order across expansive offering of genomic testing solutions



Provider-initiated order across all Sema4 germline genomic tests



GTCA ACTG TCAG  
TCAG GACT GTCA  
TAGC ATCG TCAG  
GCTA CATG ACTG

### SEQUENCE ONCE



Automated software query of generated data



- Carrier Screening
- Newborn Screening
- NICU/PICU Dx
- PGx
- Polygenic Risk Scores
- Hereditary Cancer
- Somatic Tumor Profiling

### GENERATE MANY CLINICAL REPORTS

Repeated insights from existing data → increasing tech-like gross margins for genomic tests

Ability to order subsequent tests for insights across a broad array of diseases and conditions/wellness



### RICH REFERENCE DATA SETS

easily accessed and queried for collaborations

Resulting whole exome/genome data linked to longitudinal clinical annotation

Patient's Lifetime

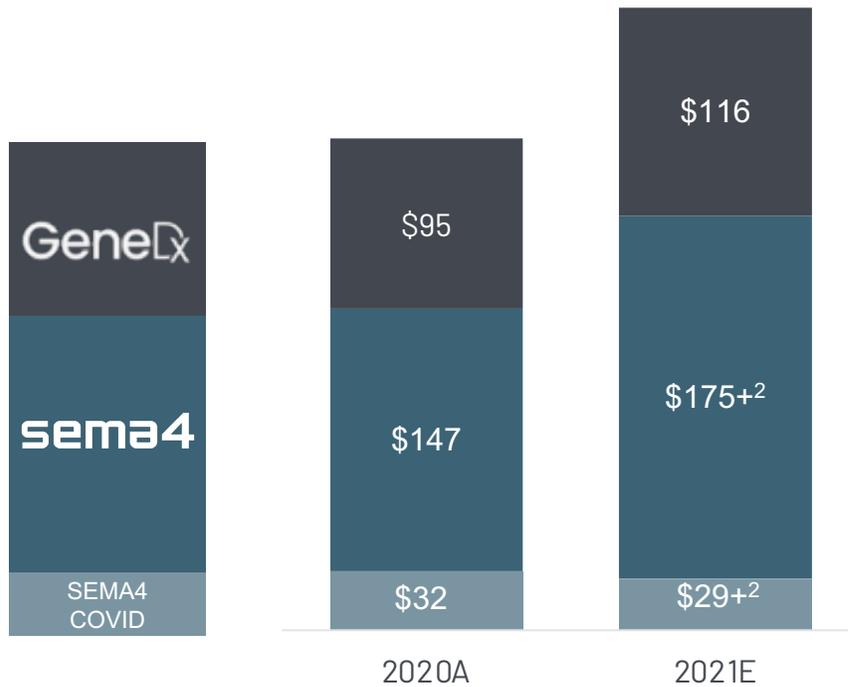
A complex network diagram with numerous nodes and connecting lines, rendered in a light gray color, serves as the background for the slide. The nodes are of varying sizes and are interconnected by thin lines, creating a dense web of connections. The overall aesthetic is clean and modern, typical of a professional presentation.

# Deal Structure & Financing Terms

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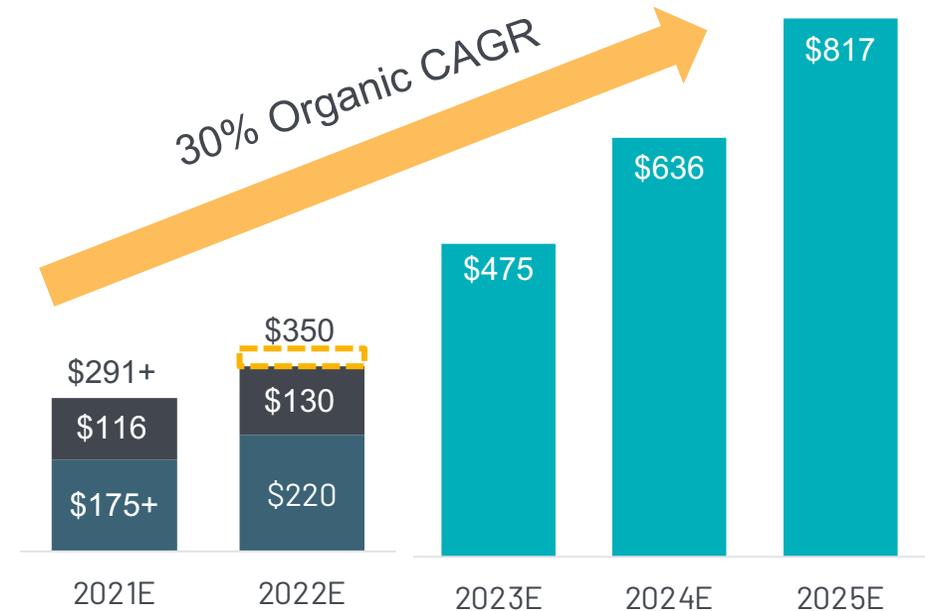
# Illustrative Pro Forma Revenue Growth and Path to Profitability<sup>1</sup>

**Standalone Revenue**  
(Historical and Estimated, \$ millions)



**Pro Forma**  
(ex-COVID, \$ millions)

**Long-Term Growth**



	2021E	2022E	2023E	2024E	2025E
Revenue Growth <sup>3</sup>	+20%	+21%	+36%	+34%	+28%
Adjusted Gross Margin	5%	16%	33%	43%	50%
Proforma FCF <sup>4</sup> (\$mm)	(\$226)	(\$271)	(\$199)	(\$99)	\$33

2022 GeneDx milestone target is \$163M vs GeneDx revenue guidance of \$130M<sup>5</sup>

<sup>1</sup> Estimated and pro forma results non-GAAP and are subject to certain assumptions, risks and uncertainties. See Disclaimer on slide 2.

<sup>2</sup> Based on Sema4's FY2021 Guidance of \$204-206M which includes COVID-19 revenue

<sup>3</sup> Revenue growth excludes COVID-19 revenue

<sup>4</sup> Proforma FCF excludes one-time transaction and integration expenses

<sup>5</sup> Milestone payment triggers at 90% of threshold

# Summary Acquisition Terms

Upfront Value

Cash	\$150M
Equity	\$323M (80.0M @ \$4.04/share) <sup>1</sup>
Total Upfront	\$473M

Milestone Payments

2022 GeneDx Revenue	\$163M in 2022 GeneDx revenue = up to \$112.5M milestone in cash or SMFR equity <sup>2</sup>
2023 GeneDx Revenue	\$219M in 2023 GeneDx revenue = up to \$37.5M milestone in cash or SMFR equity <sup>2</sup>

Total

Acquisition Multiples	Upfront consideration \$473M = <b>3.6x multiple</b> on 2022 base case revenue of \$130M Total consideration \$623M = <b>2.8x multiple</b> on 2023 milestone target revenues
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## Timing

Expected closing in Q2, subject to Sema4 stockholder approval and customary conditions

## Pro Forma Capitalization

~\$400M balance sheet cash pro forma for transaction provides ample flexibility

<sup>1</sup> Upfront shares of common stock fixed at 80.0M shares. Value calculated based on SMFR closing price of \$4.04 on January 14, 2022

<sup>2</sup> 80% of milestone payment paid if 90%+ of revenue target is achieved. Milestone payment paid in cash or shares of SMFR at Sema4's discretion

# \$200M in Committed Financing Alongside The Acquisition

Private placement from leading growth and life sciences investors, including Pfizer to fund the upfront cash portion of the GeneDx acquisition, transaction costs, and to fuel future growth

	Equity
<b>Form</b>	PIPE (Common Stock)
<b>Size</b>	\$200M
<b>Terms/Pricing</b>	\$4.00
<b>Shares</b>	50M
<b>Expected Closing Date</b>	Substantially concurrent with close of the acquisition, subject to the satisfaction of customary closing conditions.

# Creating the Leading Genomic Data Platform, from Generation to Insights



1 Serving Patients Throughout Life, Deeply Integrated Within Health Systems

2 Driving Growth and Scale in Genomic Diagnostics

3 Complementary Revenue Streams and Margin Optimization Opportunity

4 Strengthening Market-Leading Data & Analytics Capabilities

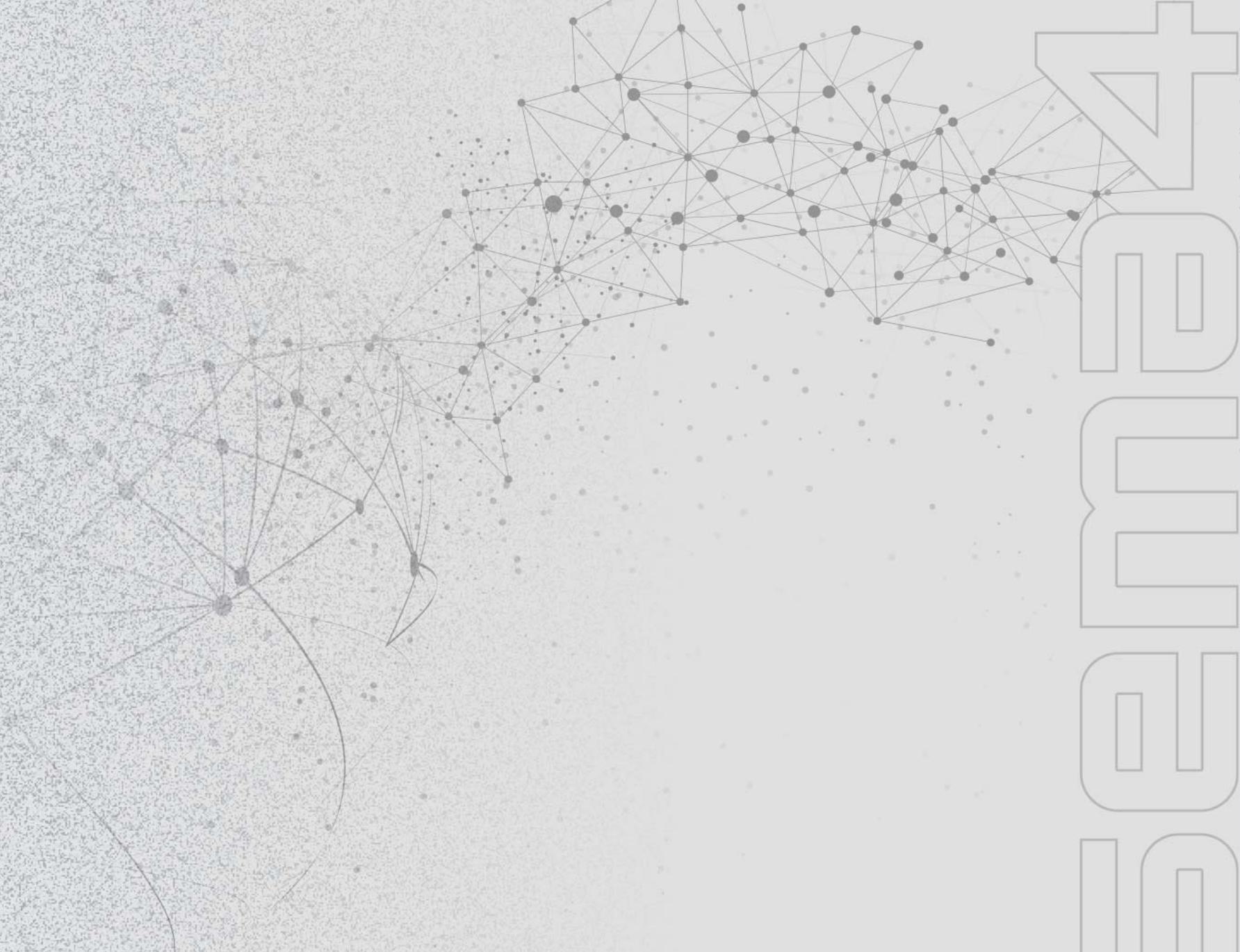
5 Joining Forces as a Team With Unparalleled Expertise in Shaping the Market

# Q&A



# Appendix

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# Leadership: Focused on Scaling and Driving Operational Excellence

## CO-CEO STRUCTURE



Eric Schadt  
Founder & CEO,  
Sema4



Focus on: Strategic Partnerships & R&D



Katherine Stueland  
President & CEO,  
GeneDx



Focus on: Commercial & Operations

## BOARD OF DIRECTORS<sup>1</sup>



Jason Ryan



Eli Casdin



Dennis Charney



Emily Leproust



Mike Pellini



Joshua Ruch



Rachel Sherman



Nat Turner



OpkoTBD



<sup>1</sup> Post Transaction Board of Directors includes Eric Schadt & Katherine Stueland

# Business Mix (2021)

**sema4**  
FY2021E<sup>1</sup>

**GeneDx**  
FY2021E<sup>1</sup>

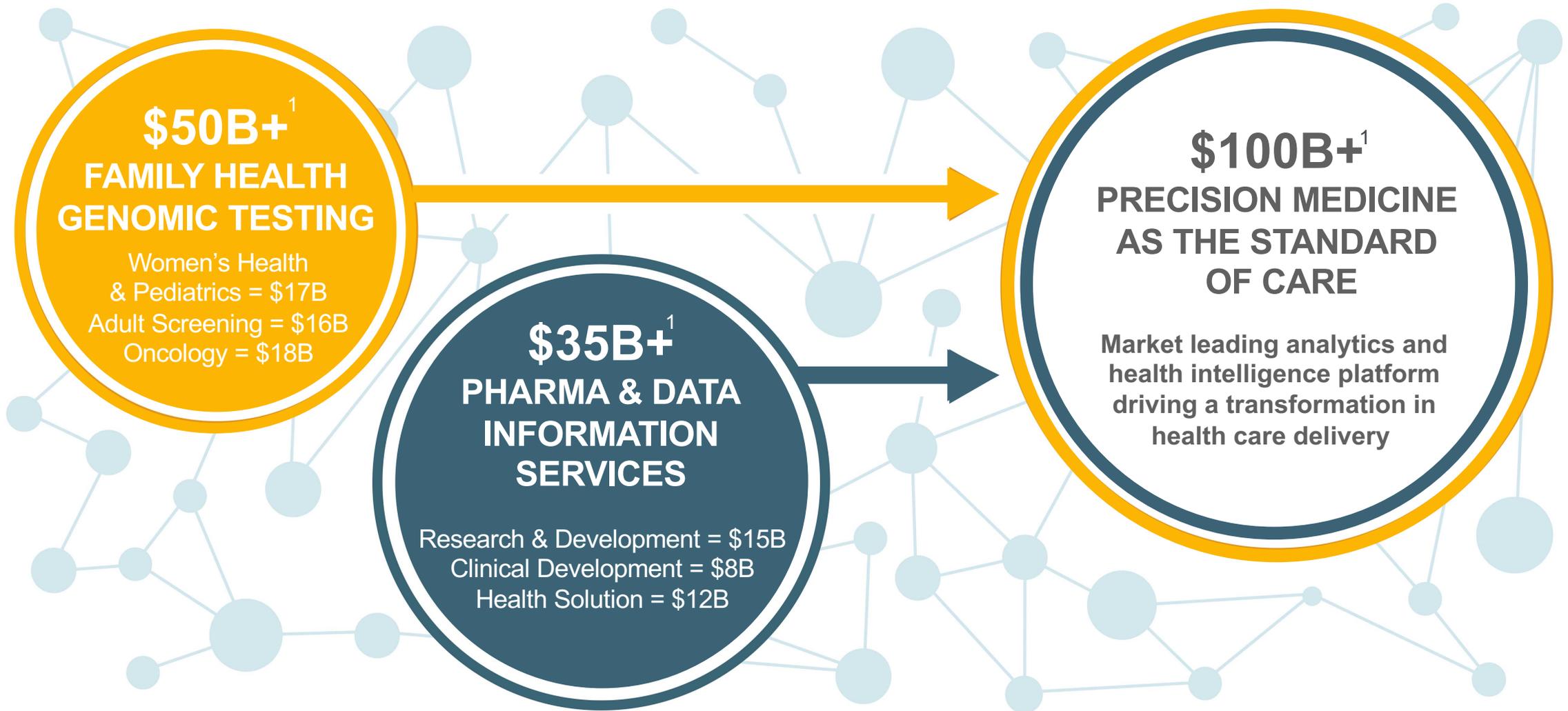
**Pro Forma<sup>1</sup>**

REVENUE	\$204-206M	\$116M	\$320-322M
% Growth	19% <sup>2</sup>	22%	20% <sup>2</sup>
VOLUME	288K <sup>1</sup>	145K	430K
% Growth	37% <sup>2</sup>	29%	35% <sup>2</sup>
TEST MIX	<p>Large Carrier 51% Other 35% NIPT 9% Oncology 5%</p>	<p>Exome 42% Rare 21% Neuro 19% Oncology 10% CV 8%</p>	<p>Large Carrier 34% Other 37% NIPT 6% Oncology 6% Rare 7% Neuro 7% CV 3%</p>

<sup>1</sup> Estimated and pro forma results are subject to certain assumptions, risks and uncertainties. See Disclaimer on slide 2.

<sup>2</sup> Represents growth excluding COVID revenues and volumes

# Providing Direct Access to Huge Tangible and Addressable Markets



# Depth and Breadth of Combined Dataset to Catalyze Secondary Data Monetization

DATA & PHARMA INFORMATION SERVICES \$35B

Research &  
Development  
\$15B<sup>1</sup>

Lead identification to help  
de-risk programs

Preclinical/Phase 1: Reduce trial  
duration, minimize dose finding,  
better patient selectivity

Clinical Development  
\$8B<sup>1</sup>

Phase II-III: Direct identification  
of patients through EMR for  
biomarker-defined trials

Protocol optimization and  
real world data

Health Solutions  
\$12B<sup>1</sup>

Data curation, population  
health and patient engagement  
for health systems

Subscriptions and connecting  
patients with products  
and services