One test. Big picture. Brighter futures.

GeneDx (Nasdaq: WGS)
3Q 2024 Earnings Presentation

October 29, 2024

Disclaimer

This presentation contains forward-looking statements under the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that do not relate to historical facts and events and such statements and opinions pertaining to the future that, for example, contain wording such as “may,” “might,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “continue,” “ongoing,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. Forward-looking statements contained in this presentation may include, but are not limited to, statements about: our future performance and our market opportunity, our expectations regarding full year 2024 revenue, adjusted gross margin profile and cash burn in 2024. We cannot assure that the forward-looking statements in this presentation will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

The forward-looking statements and opinions contained in this presentation are based on our management’s beliefs and assumptions and are based upon information currently available to our management as of the date of this presentation and, while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. Many factors could cause actual future events to differ materially from the forward-looking statements in this presentation, including but not limited to: (i) the ability to implement business plans, goals and forecasts, and identify and realize additional opportunities, (ii) the risk of downturns and a changing regulatory landscape in the highly competitive healthcare industry, (iii) the size and growth of the market in which we operate, (iv) our ability to pursue our new strategic direction, and (v) our ability to enhance our artificial intelligence tools that we use in our clinical interpretation platform. The information, opinions and forward-looking statements contained in this announcement speak only as of its date and are subject to change without notice.

This presentation contains estimates, projections and other information concerning our industry, our business, and the markets for our products and services. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties, and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from our own internal estimates and research as well as from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources. While we believe our internal company research as to such matters is reliable and the market definitions are appropriate, neither such research nor these definitions have been verified by any independent source.

We discuss these and other risks and uncertainties in greater detail in the sections entitled “Risk Factors” and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our periodic reports and other filings we make with the SEC from time to time. Given these uncertainties, you should not place undue reliance on the forward-looking statements. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation to conform these statements to actual results or to changes in our expectations. We file reports, proxy statements, and other information with the SEC. Such reports, proxy statements, and other information concerning us are available www.sec.gov. Requests for copies of such documents should be directed to our Investor Relations department at GeneDx Holdings Corp. 333 Ludlow Street, North Tower 6th Floor, Stamford, Connecticut, 06902. Our telephone number is 888-729-1206.

WGS Q3 2024 Results

Third quarter 2024 revenue from continuing operations[1] of $76.6M with 77% year-over-year revenue growth for exome and genome test revenue

Expanded third quarter 2024 adjusted gross margin[1,2] to 64%

Achieved profitability milestone with third quarter adjusted net income[1,2] of $1.2M

Third quarter 2024 total cash burn of $5M; ending September 30, 2024 with cash, cash equivalents, marketable securities and restricted cash of $117.4M

1. Results from continuing operations, which representatives our ongoing business strategy, exclude any revenue and cost of goods sold of the exited Legacy Sema4 diagnostic testing business for the current and all comparative periods. Total company results include GeneDx's continuing operations and the financial impacts of exited Legacy Sema4 business activities.
2. Adjusted gross margin and adjusted net income are non-GAAP financial measure. For a reconciliation of GAAP and non-GAAP results, please refer to the reconciliation contained at the end of this earnings presentation.

Revenue – strong growth driven by high value whole exome and genome

77%

Increase in 3Q24 exome/genome revenue year-over-year;
+18% sequentially

46%

Increase in 3Q24 exome/genome test result volume year-over-year;
+7% sequentially

Revenue[1]	Q3 2024
Revenue from continuing operations	$76.6M
Growth year-over-year	***52%***
Growth sequentially	***11%***

Exome and genome test revenue	$60.0M
Growth year-over-year	***77%***
Growth sequentially	***18%***

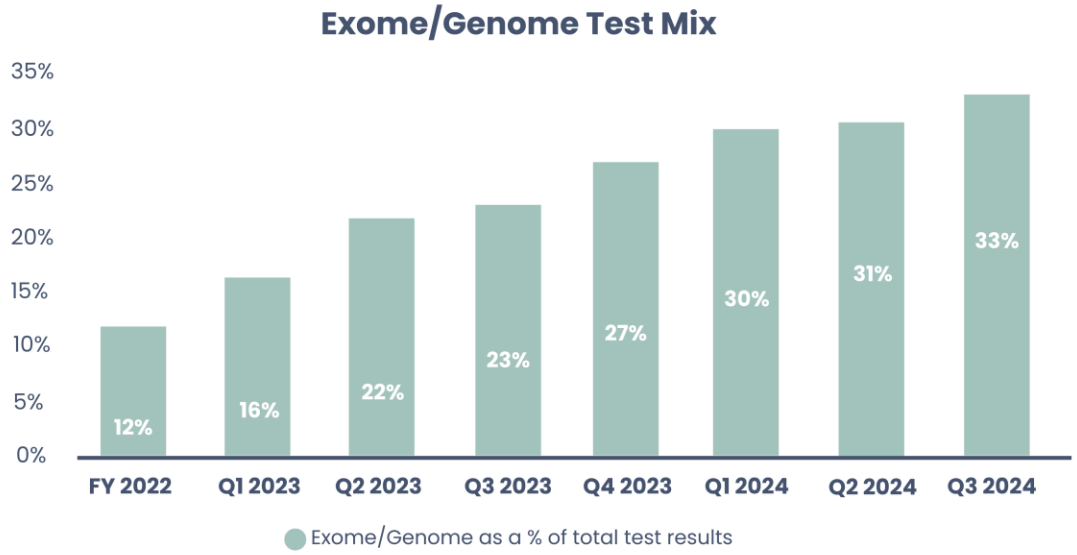
1. Total company revenues were $76.9M for the third quarter 2024. Results from continuing operations exclude the results of the exited Legacy Sema4 diagnostic testing business. Total company results include GeneDx's continuing operations and the financial impacts of exited Legacy Sema4 business activities.

Gross profit – expansion driven by mix shift, cost per test reductions and improved reimbursement

Exome/genome can be the best test for patients. They are also best for our business.

33% Exome/genome test result volume

64% Adjusted gross margins[1] from continuing operations in 3Q24, up from 48% in 3Q23 and 62% in 2Q24



Gross Profit[1]	3Q24	QoQ Sequential	YoY
Adj. Gross Profit[2]	$49.3M	16%	103%
Adj. Gross Margin %[2]	64%	+276bps	+1,607bps

1. Total company gross profit was $47.8M for the third quarter of 2024, and total company gross margin was 62%. Adjusted gross profit from continuing operations and adjusted gross margin for continuing operations exclude the results of the exited Legacy Sema4 diagnostic testing business as well as depreciation, amortization and stock-based compensation. Total company gross profit and company gross margin include GeneDx's continuing operations and the financial impacts of exited Legacy Sema4 business activities.
2. Adjusted gross profit and adjusted gross margin are non-GAAP financial measures. For a reconciliation of GAAP and non-GAAP results, please refer to the reconciliation contained at the end of this earnings presentation.

Cash – balance sheet bolstered to execute growth strategy

$117M

Cash, cash equivalents, marketable securities and restricted cash on hand at September 30, 2024

$5M

Net use of cash for the total company in Q3

88%

Improvement in total company net cash burn rate year-over-year; improved 17% sequentially

10

Consecutive quarters of cash burn reduction since acquiring GeneDx

2024 Guidance Update

- Drive full year 2024 revenues[1] between $284 to $290 million (previous guidance was between $255 to $265 million)
- Expand full year 2024 adjusted gross margin[2] profile to at least 62% (previous guidance was at least 60%)
- Use between $60 to $65 million of net cash for full year 2024 (previous guidance was between $65 to $70 million)

1. Revenue from continuing operations, which representatives our ongoing business strategy, exclude any revenue of the exited Legacy Sema4 diagnostic testing business for the current and all comparative periods. Total company results include GeneDx's continuing operations and the financial impacts of exited Legacy Sema4 business activities.
2. Adjusted gross profit is a non-GAAP financial measures. For a reconciliation of GAAP and non-GAAP results, please refer to the reconciliation contained at the end of this earnings presentation.

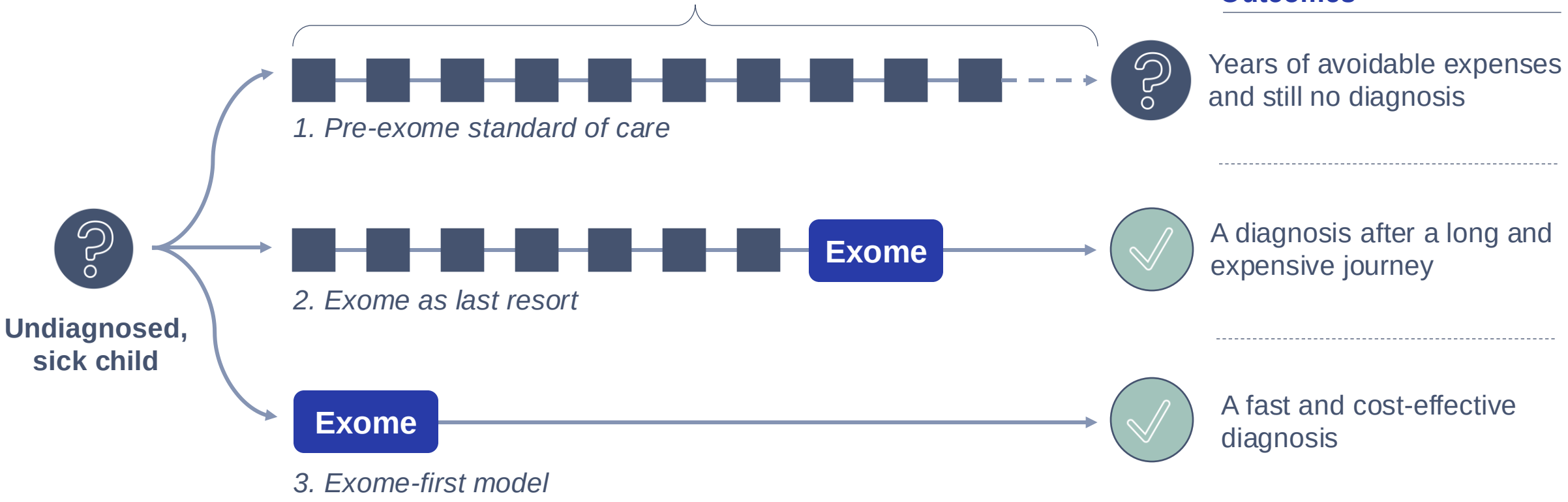
Appendix

GeneDx is a leader in improving health outcomes through genomic insights.

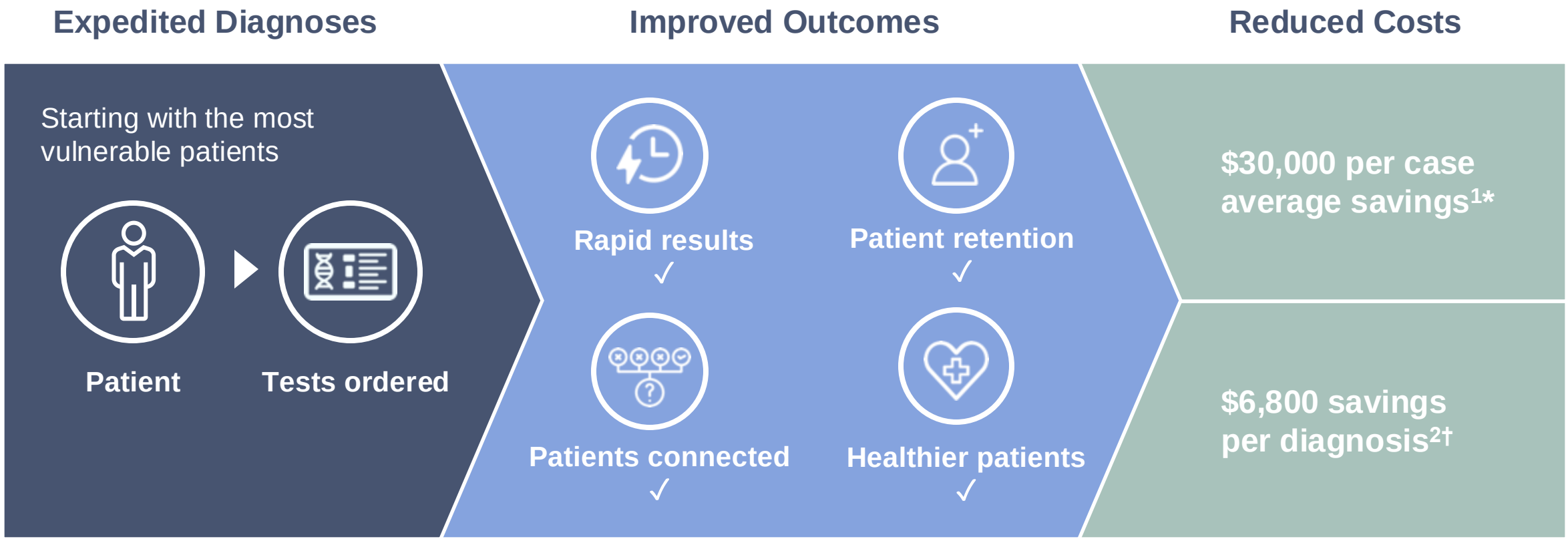
GeneDx

We address the costly and prolonged path to diagnosis

The diagnostic odyssey: Endless specialist visits, ongoing mismanagement of undiagnosed disease, and expensive, ineffective and often invasive diagnostic testing



Exome sequencing can break the cycle of misdiagnosis and uncertainty



*In the NICU from reduced length of stay, unnecessary care (inpatient).
†When tested at first tertiary presentation for Pediatric Delay Disorder (outpatient).

References: 1. ScienceDaily. (2017, October 19). Rapid whole-genome sequencing of neonatal ICU patients is useful and cost-effective. ScienceDaily. **2.** Tan TY, Dillon OJ, Stark Z, et al. Diagnostic Impact and Cost-effectiveness of Whole-Exome Sequencing for Ambulant Children With Suspected Monogenic Conditions. *JAMA Pediatrics*. 2017;171(9):855. doi:10.1001/jamapediatrics.2017.1755

GeneDx

Exome sequencing is a cost-effective solution to avoid the diagnostic odyssey

A look at the average diagnostic odyssey

- **3** misdiagnoses[1]
- **5** uninformative tests[3]
- **6+** years to an accurate diagnosis[2]
- **>$10k** in additional healthcare costs[3]
- **>70%** have a change in management with a genetic diagnosis[4]

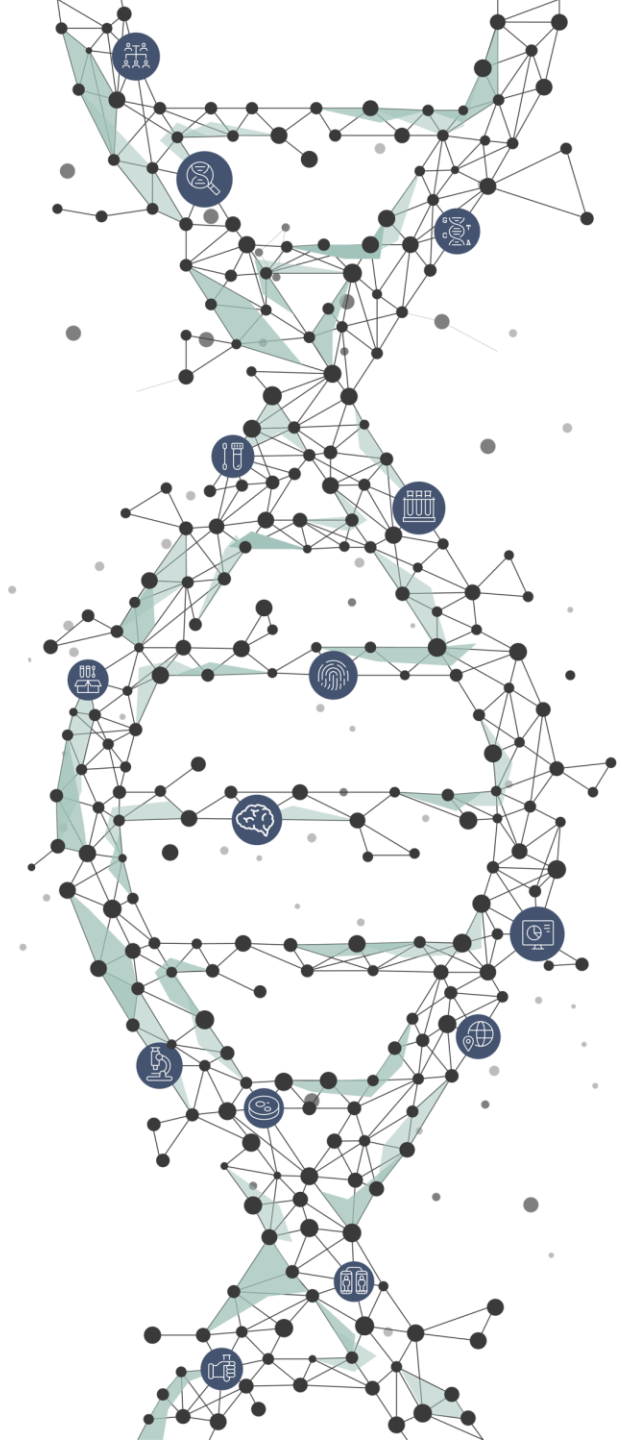
1. Genetic Alliance UK. The Rare Reality 2016. Retrieved from: https://geneticalliance.org.uk/wp-content/uploads/2024/02/the-rare-reality-an-insight-into-the-patient-and-family-experience-of-rare-disease.pdf. on June 4, 2024
2. Global Genes. RARE Disease Facts. Retrieved from: www.globalgenes.org/rare-disease-facts/ on June 4, 2024
3. Soden SE, Saunders CJ, et al. Effectiveness of exome and genome sequencing guided by acuity of illness for diagnosis of neurodevelopmental disorders. Sci Transl Med. 2014 Dec 3;6(265):265ra168. doi: 10.1126/scitranslmed.3010076.
4. Fung JLF, Yu MHC, et al. A three-year follow-up study evaluating clinical utility of exome sequencing and diagnostic potential of reanalysis. NPJ Genom Med. 2020 Sep 10;5(1):37. doi: 10.1038/s41525-020-00144-x. PMID: 32963807

GeneDx offers leading exome and genome products

Translating complex genomic data into definitive diagnoses for patients

- **Genome sequencing** – Analyzes the entirety of an individual's DNA, which is known as the genome. The genome includes ~20,000 genes.

- **Exome sequencing** – Analyzes the protein coding regions of the ~20,000 genes in an individual's genome, which is known as the exome. The exome is thought to contain a majority of disease-causing genetic variants.



Changing the perception of exome and genome sequencing

GeneDx has spent over a decade solving for limitations of the past and differentiating our products

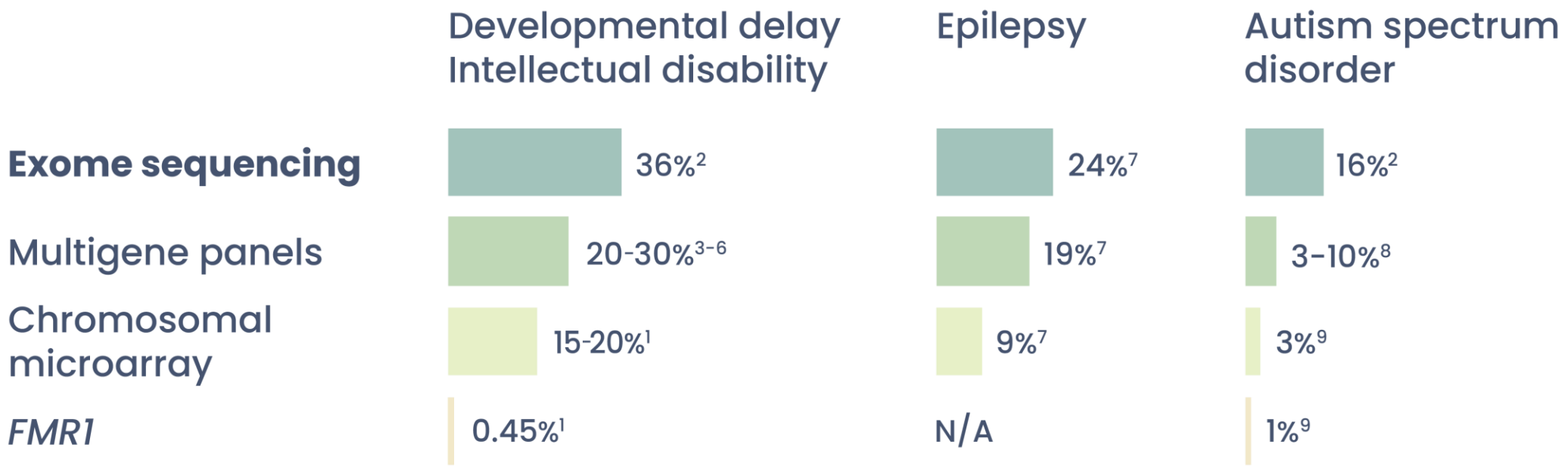
	Then	GeneDx Now
Turnaround time	"These tests take months to get results"	**"I can get results in days to weeks"**
Cost	"These tests are wildly expensive"	**"Tests are affordable and widely covered"**
Interpretation	"Results are confusing and filled with useless information"	**"My patient can get a definitive diagnosis"**

Patients we serve today are difficult to diagnose and have complex needs

Patients typically have 2+ of the indications below

- Congenital abnormalities (birth defects)
- Significant Intellectual disability
- Global developmental delay
- Seizures/epilepsy
- Failure to thrive or other growth concerns
- Autism spectrum disorder
- Complex neurodevelopmental disorder
- Severe neuropsychiatric condition
- Cerebral palsy
- Dysmorphic features
- Significant hearing or visual impairment
- Period of unexplained developmental regression
- Biochemical findings suggesting inborn error of metabolism
- Family history strongly suggestive of a genetic etiology

Exome sequencing offers greater diagnostic yields vs. other technologies



1. Savatt JM *et al*. *Front Pediatr*. 2021;9:526779. 2. Srivastava S *et al*. *Genet Med*. 2019;21(11):2413–2421. 3. Pekeles H *et al. Pediatr Neurol*. 2019;92:32-36. 4. Stefanski A *et al*. *Epilepsia*. 2021;62(1):143-151. 5. Mellone S *et al*. *Front Genet*. 2022;13:875182. 6. Spataro N *et al*. *Genes (Basel)*. 2023;14(3):708. 7. Sheidley BR *et al*. *Epilepsia*. 2022;63(2):375-387. 8. Ní Ghrálaigh F *et al*. *J Autism Dev Disord*. 2023;53(1):484-488. 9. Arteche-López A *et al*. *Genes*. 2021(12):560.

GeneDx is positioned to enable a data-informed future for healthcare.

New market expansion enables us to serve more patients

GeneDx is starting with a focus on rare disease and pediatrics and then expanding into larger markets

Rare Disease & Pediatrics: $3B

Rapidly growing patient opportunity and substantial cost savings via early screening

Newborn Screening: $10B

Currently participating in studies to evaluate exome and genome sequencing at birth

Adults: $16B

Expanding into adult markets to replace multi-gene panel and individual gene tests

Conservatively, our total addressable market is ~**$30 billion**.*

**Company Estimates supported by* DefinitiveHC diagnosis data.*

We're focused on the Rare Disease & Pediatrics market today

Rare Disease & Pediatrics: $3B

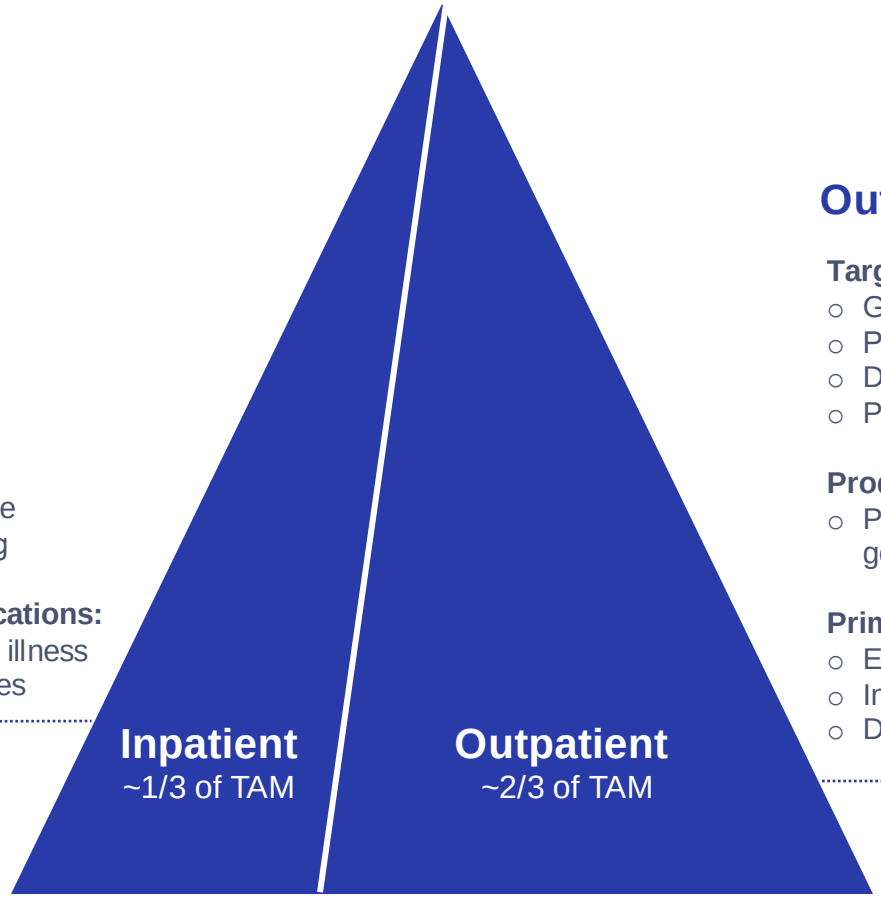
Rapidly growing patient opportunity and substantial cost savings via early screening

Inpatient

Target Clinicians:
- Geneticists
- Neonatologists

Products:
- Primarily rapid whole genome sequencing

Primary Clinical Indications:
- Unexplained critical illness
- Congenital anomalies



Outpatient

Target Clinicians:
- Geneticists
- Pediatric Neurologists
- Developmental Pediatricians
- Pediatricians (long-term)

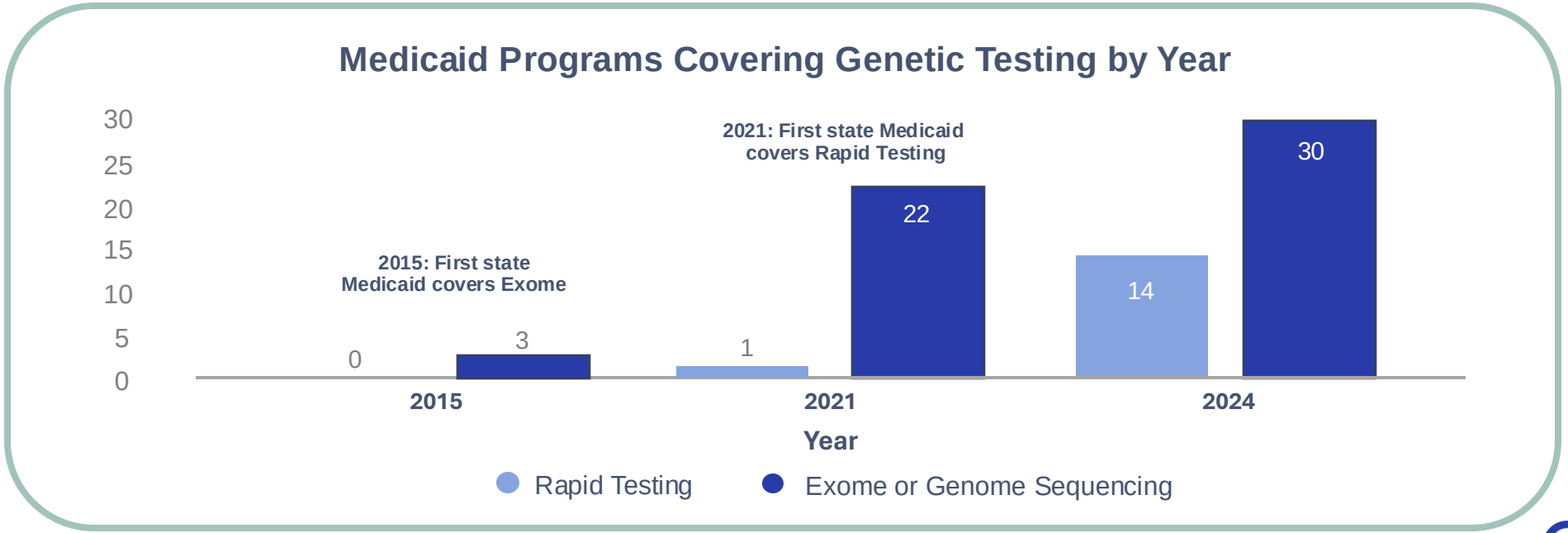
Products:
- Primarily exome and growing genome

Primary Clinical Indications:
- Epilepsy
- Intellectual disability
- Developmental delay

*Company estimates supported by Definitive HC diagnosis data.

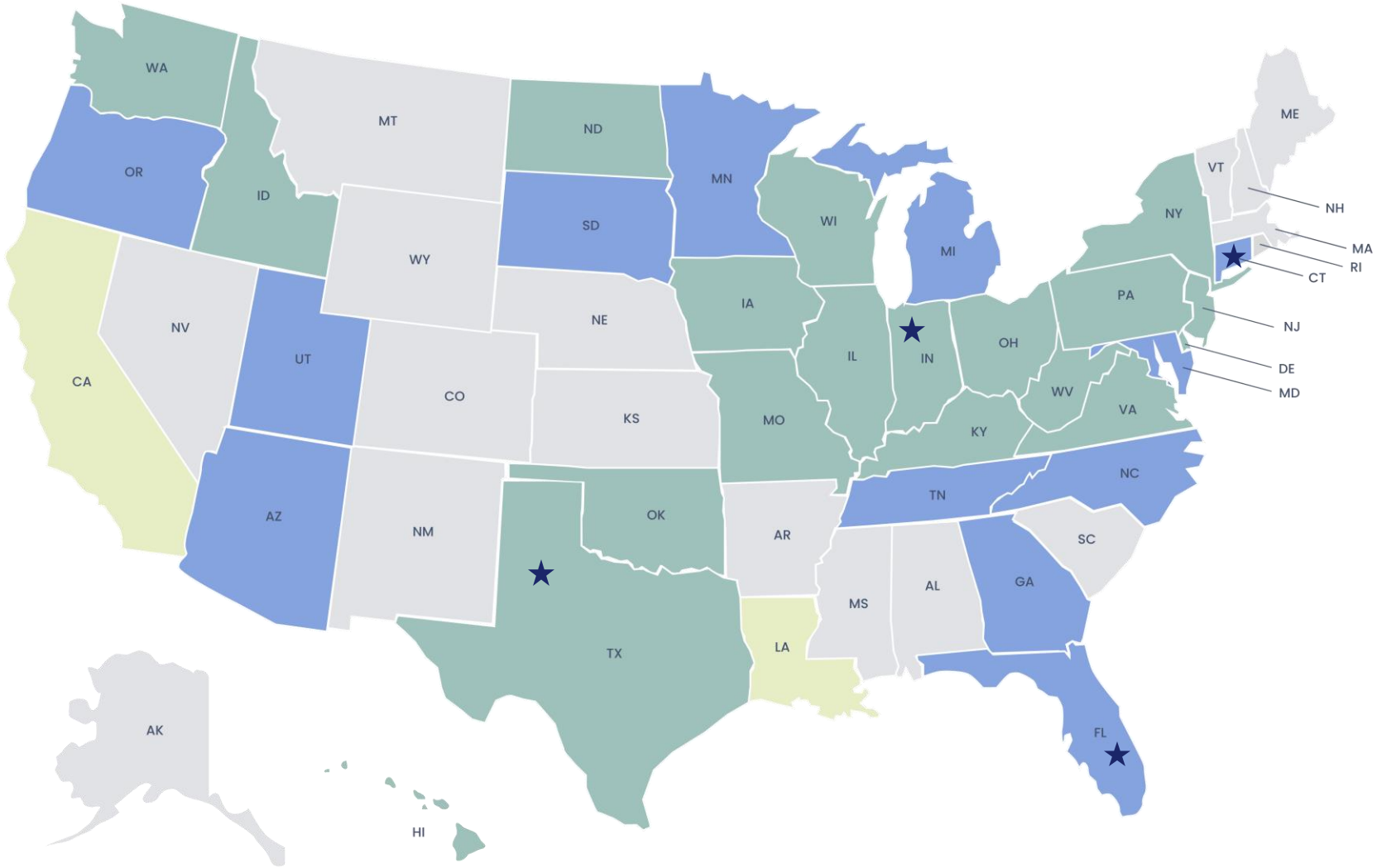
Payor coverage for exome and genome sequencing is expanding

- GeneDx is **contracted with over 80% of covered lives**, including all large national commercial payers
- **Medicaid and commercial insurance coverage continues to grow** for exome and genome
  - **30 states** cover exome or genome sequencing
    - In Q3, Indiana, Texas, Connecticut, and Florida added or enhanced coverage for exome and/or genome sequencing
  - **14 states** cover rapid genome sequencing
  - **Biomarker bills** are driving momentum in Medicaid coverage for exome and genome testing



Data through October 2024.

Medicaid programs across the country are expanding access



Current Medicaid Coverage Landscape

- Whole Exome or Whole Genome Sequencing
- Rapid Genome Sequencing
- Both
- No Coverage
- ★ New or Enhanced Coverage

Data through October 2024.

Medical practice guidelines recommend exome and genome sequencing for patients

ACMG Practice Guideline[1]:

"Strong recommendation based on the available evidence to support the use of ES/GS as either a first- (or second-) line test in patients …. ES/ GS demonstrates clinical utility for the patients and their families with limited evidence for negative outcomes and the ever-increasing emerging evidence of therapeutic benefit."

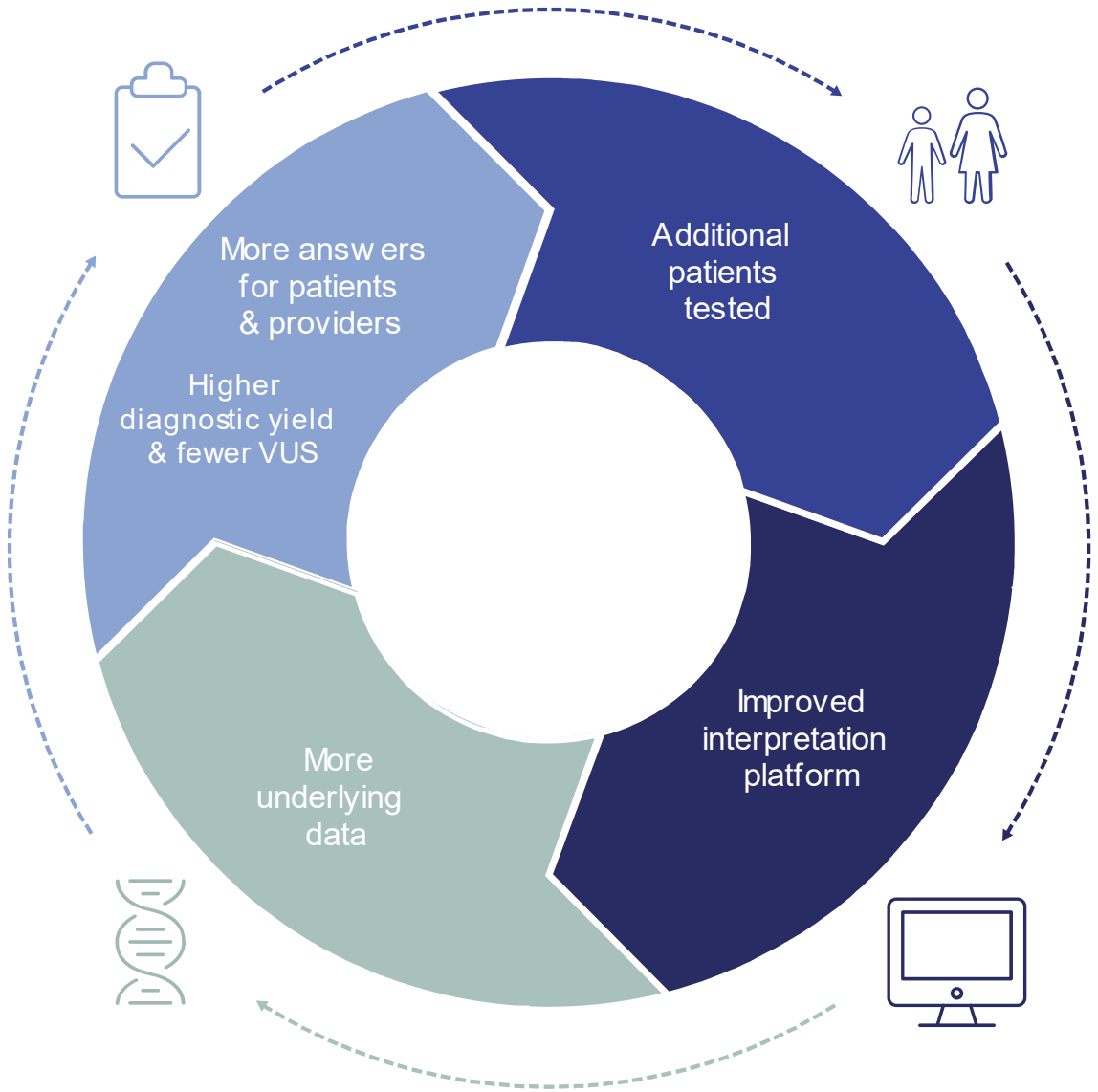
NSGC Guideline[2]:

"Recommending Exome Sequencing as a First-Tier Genetic Test for Unexplained Epilepsies"

American Epilepsy Society:

"Exome or genome sequencing are favored for most scenarios, as they are more likely to provide a diagnosis."

1. Manickam K, McClain MR, Demmer LA, et al. Exome and genome sequencing for pediatric patients with congenital anomalies or intellectual disability: an evidence-based clinical guideline of the American College of Medical Genetics and Genomics (ACMG). Genet Med. 2021 Nov;23(11):2029-2037. doi: 10.1038/s41436-021-01242-6. Epub 2021 Jul 1.
2. Smith L, Malinowski J, Ceulemans S, et al. Genetic testing and counseling for the unexplained epilepsies: An evidence-based practice guideline of the National Society of Genetic Counselors. J Genet Couns. 2022 Oct 24. doi.org/10.1002/jgc4.1646



Pay-it-forward data strategy

For every patient that we test, our underlying interpretation platform gets smarter, and we can offer more answers to more patients.

The impact scales as we capture more and more of the market.

Data is at the center of our business

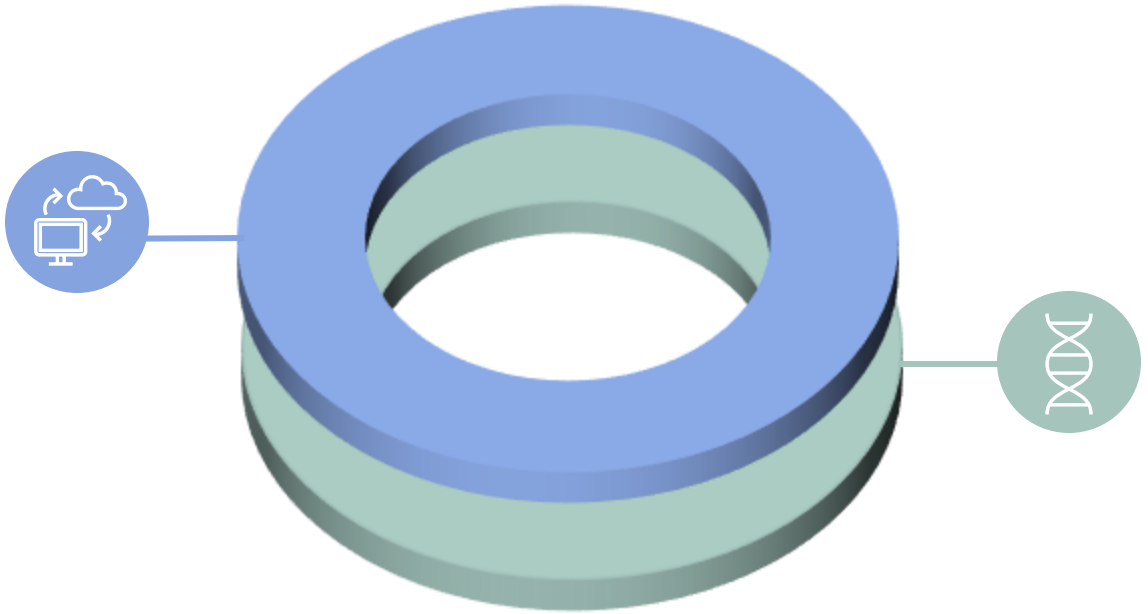
Our huge dataset and intelligent interpretation platform set us apart and fuel innovation

Advanced interpretation platform

Simplifies complex genomic data

Reduces variants of unknown significance

Increases diagnostic yield



>700K sequenced exomes

Significant clinical and genomic data

Fuels improved testing accuracy

Advances science and powering future discoveries

Common diseases are in fact a constellation of genetic diagnoses

One example is epilepsy. At least 768 different genes are related to seizures.

Only 43% are tested on many commercial epilepsy panels

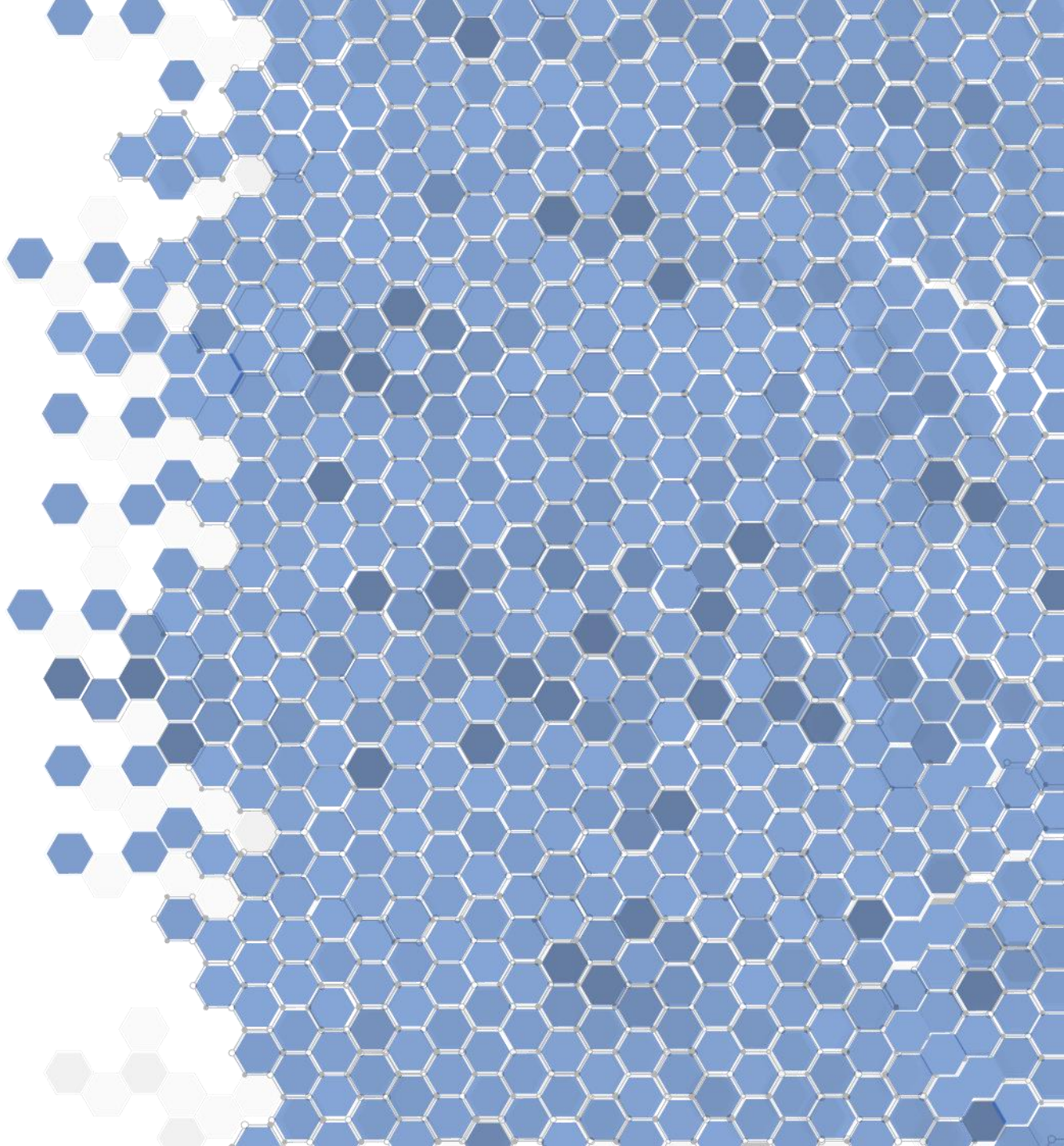
Butler L. *et al.* Exome-based testing for patients with seizures: Advantages over panel-based testing. Poster presented at American Epilepsy Society Annual Meeting; December 2, 2023; Orlando, FL.

Common diseases are in fact a constellation of genetic diagnoses

One example is epilepsy. At least 768 different genes are related to seizures.

Only 43% are tested on many commercial epilepsy panels

Exome sequencing checks all 768 genes



Butler L. *et al.* Exome-based testing for patients with seizures: Advantages over panel-based testing. Poster presented at American Epilepsy Society Annual Meeting; December 2, 2023; Orlando, FL.

We are translating our leadership in exome and investing in a genome future

We've improved solutions for our providers to deliver the best patient care

Integrating with Epic Aura (2025)

Expanding access by integrating into existing health system and provider workflows

Improving WGS products

Adding repeat expansions to increase diagnostic yield and decrease the need for follow-up testing

Reducing rWGS turnaround time

Written results in as soon as 5 days

Expanding sample collection options

Improving WGS accessibility with cheek swabs

Epic and Aura are trademarks of Epic Systems Corporation

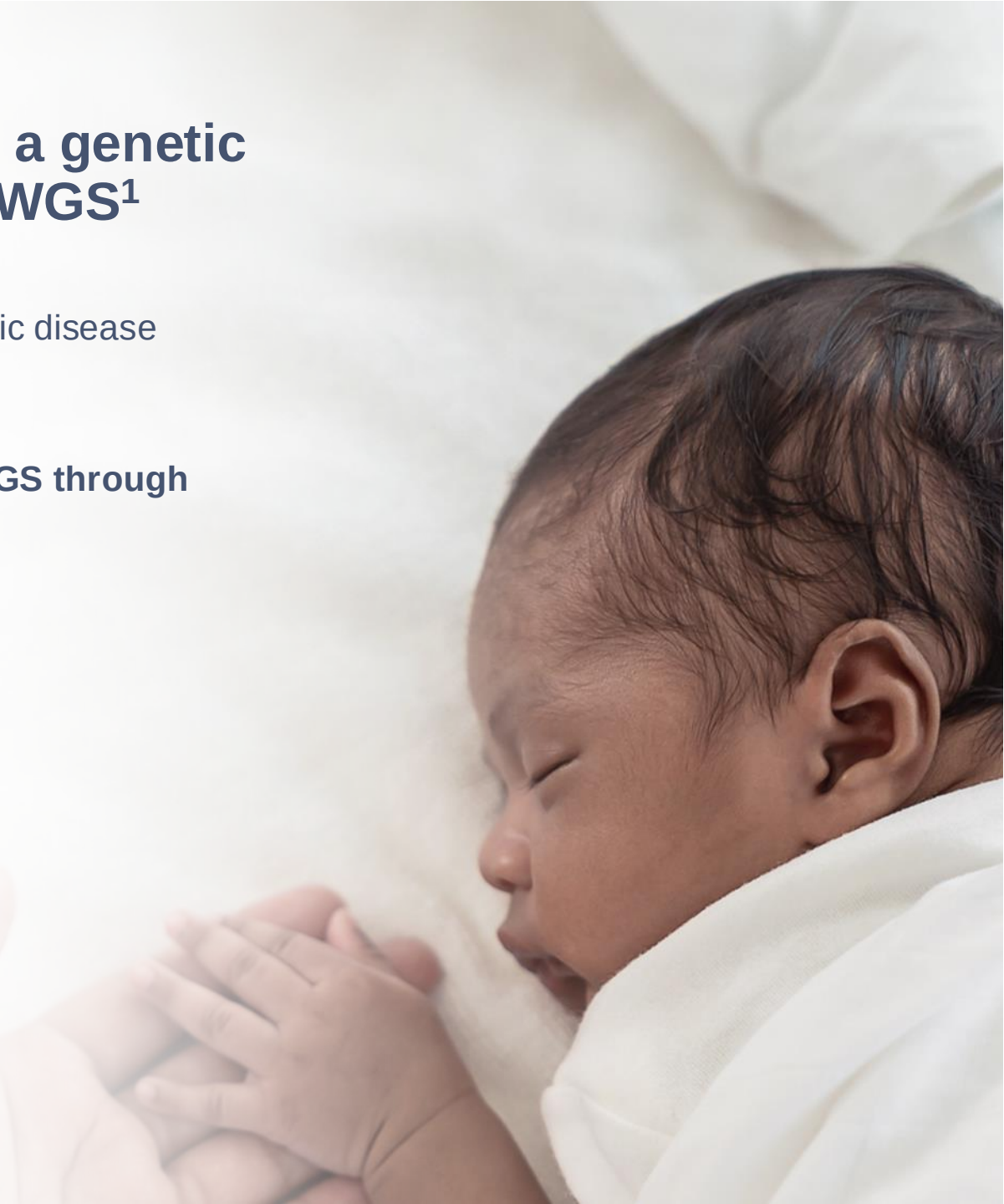
1 in 3 babies in the NICU is likely to have a genetic condition that could be diagnosed with rWGS[1]

Cost associated with NICU/PICU care for these babies with genetic disease is over 50% of the US pediatric inpatient health spend[2,3]

We are demonstrating the clinical and economic utility of rWGS through the SeqFirst study. In phase one of the SeqFirst study:

63% of infants had abnormal rapid WGS results, and **88%** of these cases resulted in a change in management

90% of diagnoses made by WGS would not have been predicted by clinical features



1. NICUSeq Study Group, Krantz ID, Medne L, et al. Effect of whole-genome sequencing on the clinical management of acutely ill infants with suspected genetic disease: a randomized clinical trial. JAMA Pediatr. 2021 Dec 1;175(12):1218-1226. doi: 10.1001/jamapediatrics.2021.3496
2. Dukhovny D and Zupanci JAF. Economic Evaluation With Clinical Trials in Neonatology. *Neoreviews* (2011) 12 (2): e69–e75 https://doi.org/10.1542/neo.12-2-e69
3. Gonzaludo N, Belmont JW, Gainullin VG, et al. Estimating the burden and economic impact of pediatric genetic disease. Genet Med. 2019 Aug;21(8):1781-1789. doi: 10.1038/s41436-018-0398-5

Today, we shorten the diagnostic journey.
Tomorrow, we hope to prevent it.

GeneDx

The GUARDIAN study is proving we can – and should – implement genomic newborn screening at scale

GUARDIAN is using GeneDx genome sequencing to screen 100,000 newborns for 400+ actionable genetic conditions not currently included in traditional newborn screening

Published in JAMA, the Journal of the American Medical Association, in October 2024, the first phase of the GUARDIAN study:

- Analysis of **4,000** healthy infants (ongoing study, >13,000 screened to date)
- **Nearly 4% positive rate**, and **92%** of positives would not have been detected with traditional NBS
- Average age of diagnosis for these conditions is **7-11** years old

GeneDx GUARDIAN STUDY

GeneDx's data-driven solutions help to advance new therapies across the drug development pipeline – quickly and more cost-effectively

Optimize clinical trials

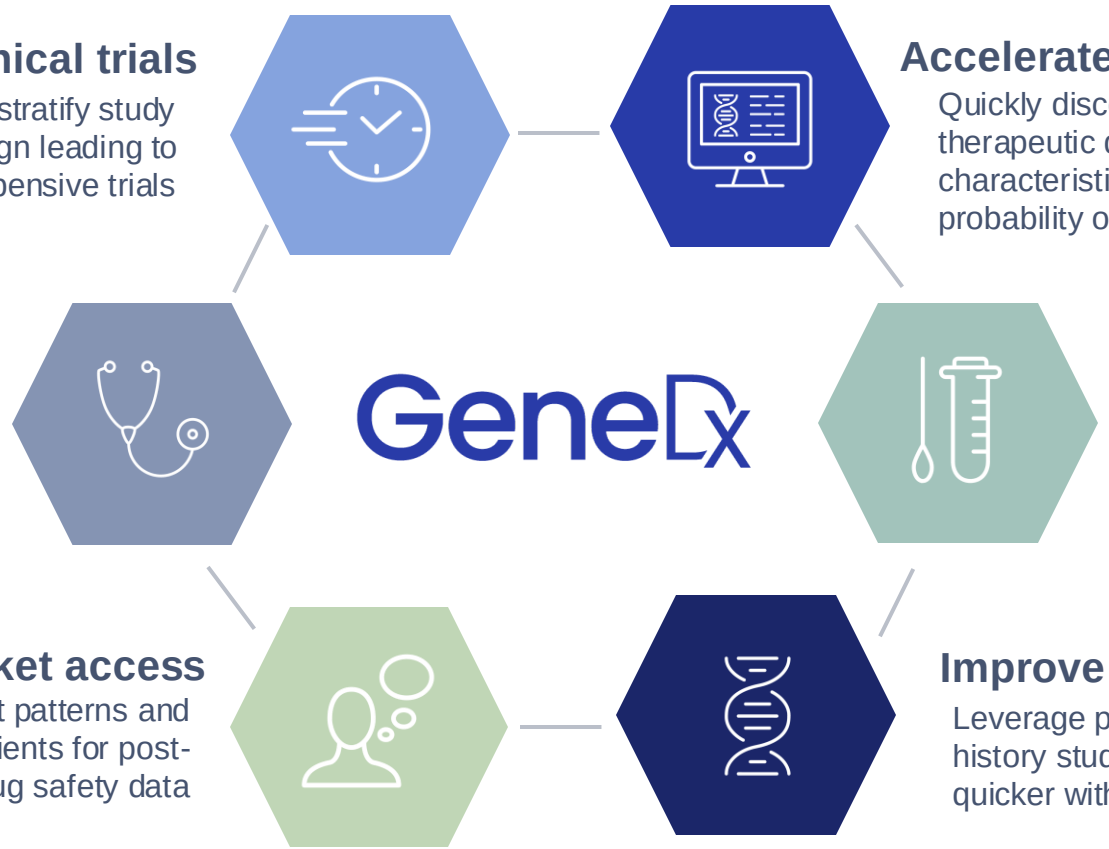
Quickly identify and recruit patients, stratify study populations and optimize trial design leading to shorter and less expensive trials

Accelerate drug discovery process

Quickly discover new biomarkers and drug targets for therapeutic development and understand real-world characteristics of patient populations with improved probability of success

Increase genetic diagnoses

Help to shorten the diagnostic odyssey for rare disease patients by facilitating access to genetic testing



Guide research & development

Utilize data to explore genetic associations, validate hypotheses, and advance scientific knowledge

Expand drug market access

Better understand real-world treatment patterns and efficacy outcomes, connect with patients for post-market surveillance to analyze drug safety data

Improve understanding of disease

Leverage patient medical records to expedite natural history studies to submit to regulatory agencies quicker with increased likelihood of approval

One test.
Big picture.
Brighter futures.

Reconciliation of Non-GAAP Financial Measures

Adjusted Gross Profit and Adjusted Gross Margin

	Three months ended September 30,						Three months ended June 30,		
	2024			2023			2024		
	GeneDx	Legacy Sema4	Total	GeneDx	Legacy Sema4	Total	GeneDx	Legacy Sema4	Total
Revenue	$ 76,622	$ 252	$ 76,874	$ 50,350	$ 2,953	$ 53,303	$ 68,924	$ 1,590	$ 70,514
Cost of services	29,045	–	29,045	27,819	225	28,044	27,417	145	27,562
Gross profit	$ 47,577	$ 252	$ 47,829	$ 22,531	$ 2,728	$ 25,259	$ 41,507	$ 1,445	$ 42,952
Gross margin	*62%*	*100%*	*62%*	*45%*	*92%*	*47%*	*60%*	*91%*	*61%*
Reconciliations:									
Depreciation and amortization	1,495	–	1,495	1,613	–	1,613	808	–	808
Stock-based compensation	174	–	174	75	–	75	86	–	86
Restructuring charges	6	–	6	52	–	52	–	–	–
Adjusted gross profit	$ 49,252	$ 252	$ 49,504	$ 24,271	$ 2,728	$ 26,999	$ 42,401	$ 1,445	$ 43,846
Adjusted gross margin	*64%*	*100%*	*64%*	*48%*	*92%*	*51%*	*62%*	*91%*	*62%*

Reconciliation of Non-GAAP Financial Measures

Adjusted Net Income

	Three months ended September 30, 2024
Net loss	$ (8,312)
Reconciliations:	
Depreciation and amortization expense	5,929
Stock-based compensation expense	3,636
Restructuring costs	369
Change in fair value of financial liabilities	880
Other	(1,327)
Adjusted net income	$ 1,175