

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-Q

x **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2023

Commission file number 001-39482



GeneDx Holdings Corp.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

85-1966622

(I.R.S. Employer Identification No.)

**333 Ludlow Street, North Tower; 6th Floor
Stamford, Connecticut 06902**

(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code: **(800) 298-6470**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Class A common stock, par value \$0.0001 per share	WGS	The Nasdaq Stock Market LLC
Warrants to purchase one share of Class A common stock, each at an exercise price of \$379.50 per share	WGSWW	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes x No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes x No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="radio"/>	Accelerated filer	<input checked="" type="radio"/>
Non-accelerated filer	<input type="radio"/>	Smaller reporting company	<input checked="" type="radio"/>
		Emerging growth company	<input checked="" type="radio"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The registrant had 25,884,279 shares of Class A common stock, par value \$0.0001, outstanding at October 30, 2023.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain matters discussed in this report, including matters discussed under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” may constitute forward-looking statements for purposes of the Securities Act of 1933, as amended (the “Securities Act”), and the Securities Exchange Act of 1934, as amended, (the “Exchange Act”), and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from the future results, performance or achievements expressed or implied by such forward-looking statements. The words “anticipate,” “believe,” “estimate,” “may,” “expect” and similar expressions are generally intended to identify forward-looking statements. Our actual results may differ materially from the results anticipated in these forward-looking statements due to a variety of factors, including, without limitation, those discussed under the captions “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this report, as well as other factors which may be identified from time to time in our other filings with the Securities and Exchange Commission (the “SEC”), or in the documents where such forward-looking statements appear. All written or oral forward-looking statements attributable to us are expressly qualified in their entirety by these cautionary statements. Such forward-looking statements include, but are not limited to, statements about:

- our estimates of the sufficiency of our existing capital resources combined with future anticipated cash flows and future capital requirements to finance our operating requirements, and capital expenditures;
- our expectations for generating revenue, incurring losses, and becoming profitable on a sustained basis;
- unforeseen circumstances or other disruptions to normal business operations, including supply chain interruptions and manufacturing constraints, arising from or related to public health emergencies such as but not limited to the COVID-19 pandemic, natural disasters, acts of terrorism or other uncontrollable events;
- our expectations regarding our ability to scale to profitability, our plans to pursue a new strategic direction, and the cost savings and impact on our gross margins from exiting our reproductive and women’s business and our somatic tumor testing business;
- our ability to successfully implement our business strategy;
- our expectations or ability to enter into service, collaboration and other partnership agreements;
- our expectations or ability to build our own commercial infrastructure to scale market and sell our products;
- actions or authorizations by the U.S. Food and Drug Administration, or other regulatory authorities;
- risks related to governmental regulation and other legal obligations, including privacy, data protection, information security, consumer protection, and anti-corruption and anti-bribery;
- our ability to obtain and maintain intellectual property protection for our product candidates;
- our ability to compete against existing and emerging technologies;
- third-party payor reimbursement and coverage decisions, negotiations and settlements;
- our reliance on third-party service providers for our data programs;
- our accounting estimates and judgments, including our expectations regarding the adequacy of our reserves for third party payor claims, our estimates of the fair value of the second Milestone Payment (as defined below) related to our April 2022 acquisition (the “Acquisition”) of GeneDx, LLC (formerly, GeneDx, Inc.) (“Legacy GeneDx”) and our conclusions regarding the appropriateness of the carrying value of intangible assets and goodwill;
- our stock price and its volatility; and
- our ability to attract and retain key personnel.

The forward-looking statements contained in this report reflect our views and assumptions only as of the date that this report is signed. Except as required by law, we assume no responsibility for updating any forward-looking statements.

We qualify all of our forward-looking statements by these cautionary statements. In addition, with respect to all of our forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

Unless otherwise stated herein or unless the context otherwise requires, references in this report to the “Company,” “GeneDx,” or “we,” “us” and “our” refer to (i) Mount Sinai Genomics, Inc. d/b/a as Sema4 (“Legacy Sema4”) prior to the consummation of the July 2021 business combination (the “Business Combination”) with CM Life Sciences, Inc.; and (ii) GeneDx Holdings Corp. and its subsidiaries following the consummation of the Business Combination (including, following the consummation of the Acquisition, Legacy GeneDx).

Part I - Financial Information
Item 1. Condensed Consolidated Financial Statements

GeneDx Holdings Corp.
Condensed Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	September 30, 2023 (Unaudited)	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	\$ 87,387	\$ 123,933
Marketable securities	26,910	—
Accounts receivable	31,908	42,634
Due from related parties	498	708
Inventory, net	9,349	13,665
Prepaid expenses and other current assets	15,761	31,682
Total current assets	171,813	212,622
Operating lease right-of-use assets	27,536	32,758
Property and equipment, net	35,746	51,527
Intangible assets, net	176,131	186,650
Other assets	6,059	7,385
Total assets	\$ 417,285	\$ 490,942
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable and accrued expenses	\$ 38,873	\$ 84,878
Due to related parties	3,970	3,593
Short-term lease liabilities	3,677	6,121
Other current liabilities	21,846	49,705
Total current liabilities	68,366	144,297
Long-term debt, net of current portion	6,052	6,250
Long-term lease liabilities	63,889	60,013
Other liabilities	22,660	24,018
Deferred taxes	2,060	2,659
Total liabilities	163,027	237,237
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Preferred Stock, \$0.0001 par value: 1,000,000 and 1,000,000 shares authorized at September 30, 2023 and December 31, 2022, respectively; 0 shares issued and outstanding at September 30, 2023 and December 31, 2022, respectively	—	—
Class A common stock, \$0.0001 par value: 1,000,000,000 and 1,000,000,000 shares authorized at September 30, 2023 and December 31, 2022, respectively; 25,875,389 and 11,773,065 shares issued and outstanding at September 30, 2023 and December 31, 2022, respectively	2	1
Additional paid-in capital	1,528,671	1,378,125
Accumulated deficit	(1,274,415)	(1,124,421)
Total stockholders' equity	254,258	253,705
Total liabilities and stockholders' equity	\$ 417,285	\$ 490,942

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

GeneDx Holdings Corp.
Condensed Consolidated Statements of Operations and Comprehensive Loss (Unaudited)
(in thousands, except share and per share amounts)

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Revenue				
Diagnostic test revenue	\$ 51,955	\$ 81,490	\$ 140,440	\$ 167,989
Other revenue	1,348	1,744	4,708	5,355
Total revenue	<u>53,303</u>	<u>83,234</u>	<u>145,148</u>	<u>173,344</u>
Cost of services	28,044	69,685	85,896	183,768
Gross profit (loss)	<u>25,259</u>	<u>13,549</u>	<u>59,252</u>	<u>(10,424)</u>
Research and development	14,288	13,354	46,018	61,837
Selling and marketing	16,763	34,383	45,397	92,839
General and administrative	26,099	54,931	107,129	172,958
Impairment loss	8,282	—	10,402	—
Other operating expenses, net	2,794	1,697	5,259	4,712
Loss from operations	<u>(42,967)</u>	<u>(90,816)</u>	<u>(154,953)</u>	<u>(342,770)</u>
Non-operating income (expenses), net				
Change in fair market value of warrant and earn-out contingent liabilities	590	12,978	684	54,350
Interest income (expense), net	1,053	190	2,092	(999)
Other (expense) income, net	(1,134)	2	1,668	58
Total non-operating income, net	<u>509</u>	<u>13,170</u>	<u>4,444</u>	<u>53,409</u>
Loss before income taxes	\$ (42,458)	\$ (77,646)	\$ (150,509)	\$ (289,361)
Income tax benefit	172	65	515	49,142
Net loss and comprehensive loss	<u>\$ (42,286)</u>	<u>\$ (77,581)</u>	<u>\$ (149,994)</u>	<u>\$ (240,219)</u>
Weighted average shares outstanding of Class A common stock	25,788,747	11,538,308	23,777,327	9,741,250
Basic and diluted net loss per share, Class A common stock	\$ (1.64)	\$ (6.72)	\$ (6.31)	\$ (24.66)

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

GeneDx Holdings Corp.
Condensed Consolidated Statement of Stockholders' Equity (Unaudited)
(in thousands, except share amounts)

	Three months ended September 30, 2023				
	Class A Common Stock		Additional paid-in capital	Accumulated deficit	Total stockholders' equity
	Shares	Par value			
Balance at June 30, 2023	25,761,147	\$ 2	\$ 1,528,240	\$ (1,232,129)	\$ 296,113
Net loss	—	—	—	(42,286)	(42,286)
Stock-based compensation expense	—	—	431	—	431
Vested restricted stock units converted to common stock	114,242	—	—	—	—
Balance at September 30, 2023	25,875,389	\$ 2	\$ 1,528,671	\$ (1,274,415)	\$ 254,258

	Nine months ended September 30, 2023				
	Class A Common Stock		Additional paid-in capital	Accumulated deficit	Total stockholders' equity
	Shares	Par value			
Balance at December 31, 2022	11,773,065	\$ 1	\$ 1,378,125	\$ (1,124,421)	\$ 253,705
Net loss	—	—	—	(149,994)	(149,994)
Common stock issued pursuant to stock option exercises	50,444	—	266	—	266
Stock-based compensation expense	—	—	586	—	586
Vested restricted stock units converted to common stock	328,197	—	—	—	—
Issuance of Class A common shares in registered direct offering, net of issuance costs	676,868	—	7,564	—	7,564
Issuance of Class A common shares for the first Milestone Payment	701,460	—	6,692	—	6,692
Fractional shares issued upon Reverse Stock Split	29,603	—	—	—	—
Issuance of Class A common shares in underwritten public offering, net of issuance costs	12,315,752	1	135,438	—	135,439
Balance at September 30, 2023	25,875,389	\$ 2	\$ 1,528,671	\$ (1,274,415)	\$ 254,258

	Three months ended September 30, 2022				
	Class A Common Stock		Additional paid-in capital	Accumulated deficit	Total stockholders' equity
	Shares	Par value			
Balances at June 30, 2022	11,512,026	\$ 1	\$ 1,375,352	\$ (738,079)	\$ 637,2
Net loss	—	—	—	(77,581)	(77,581)
Common stock issued pursuant to stock option exercises	18,646	—	329	—	3
Stock based compensation expense	—	—	1,272	—	1,2
Vested restricted stock units converted to common stock	27,781	—	—	—	—
Balances at September 30, 2022	11,558,453	\$ 1	\$ 1,376,953	\$ (815,660)	\$ 561,2

	Nine months ended September 30, 2022				
	Class A Common Stock		Additional paid-in capital	Accumulated deficit	Total stockholders' equity
	Shares	Par value			
Balances at December 31, 2021	7,352,958	\$ 1	\$ 963,543	\$ (575,441)	\$ 388,103
Net loss	—	—	—	(240,219)	(240,219)
Common stock issued pursuant to stock option exercises	210,318	—	2,198	—	2,198
Stock based compensation expense	—	—	41,553	—	41,553
Shares issued for PIPE, net of issuance costs	1,515,152	—	197,659	—	197,659
Shares issued for acquisition ⁽¹⁾	2,424,243	—	172,000	—	172,000
Vested restricted stock units converted to common stock	55,782	—	—	—	—
Balances at September 30, 2022	11,558,453	\$ 1	\$ 1,376,953	\$ (815,660)	\$ 561,294

(1) Of the 2.4 million shares issued for acquisition, 251,965 shares were held by an escrow agent for a one year escrow period. During this period, the seller retained all rights with respect to the escrow shares, including voting rights and rights to receive dividends and other distributions on such escrow shares.

GeneDx Holdings Corp.
Condensed Consolidated Statements of Cash Flows (Unaudited)
(in thousands)

	Nine months ended September 30,	
	2023	2022
Operating activities		
Net loss	\$ (149,994)	\$ (240,219)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	27,640	25,269
Impairment loss	10,402	—
Gain on sale of assets	(2,954)	—
Stock-based compensation expense	586	41,553
Gain on debt forgiveness	(2,750)	—
Change in fair value of warrant and earn-out contingent liabilities	(685)	(54,350)
Deferred tax benefit	(515)	(49,176)
Provision for excess and obsolete inventory	3,634	732
Third party payor reserve release	(6,848)	—
Non-cash lease expense	684	1,112
Amortization of deferred debt issuance costs	387	387
Change in operating assets and liabilities:		
Accounts receivable	10,726	5,491
Inventory	682	(5,239)
Accounts payable and accrued expenses	(39,913)	28,557
Other assets and liabilities	(1,371)	(8,618)
Net cash used in operating activities	(150,289)	(254,501)
Investing activities		
Consideration on escrow paid for GeneDx acquisition	(12,144)	(127,004)
Purchases of property and equipment	(2,874)	(4,990)
Proceeds from sale of assets	3,887	—
Purchases of marketable securities	(43,935)	—
Proceeds from sales of marketable securities	16,665	—
Development of internal-use software assets	(461)	(6,494)
Net cash used in investing activities	(38,862)	(138,488)
Financing activities		
Proceeds from PIPE issuance, net of issuance costs	—	197,659
Proceeds from offerings, net of issuance costs	143,002	—
Finance lease payoff and principal payments	(2,133)	(2,632)
Long-term debt principal payments	(2,000)	—
Exercise of stock options	266	2,223
Net cash provided by financing activities	139,135	197,250
Net decrease in cash, cash equivalents and restricted cash	(50,016)	(195,739)
Cash, cash equivalents and restricted cash, at beginning of period	138,303	401,469
Cash, cash equivalents and restricted cash, at end of period	\$ 88,287	\$ 205,730
Supplemental disclosures of cash flow information		
Cash paid for interest	\$ 1,116	\$ 1,795
Cash paid for taxes	\$ 1,178	\$ 487
Stock consideration paid for purchase of business	\$ —	\$ 172,000
Purchases of property and equipment in accounts payable and accrued expenses	\$ 1,220	\$ 1,546
Software development costs in accounts payable and accrued expenses	\$ —	\$ 448

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

GeneDx Holdings Corp.

Notes to Unaudited Condensed Consolidated Financial Statements

1. Organization and Description of Business

GeneDx Holdings Corp., through its subsidiaries GeneDx, LLC and Sema4 OpCo, Inc., provides genomics-related diagnostic and information services and pursues genomics medical research. GeneDx utilizes an integrated portfolio of laboratory processes, software tools and informatics capabilities to process DNA-containing samples, analyzes information about patient-specific genetic variation and generates test reports for clinicians and their patients. GeneDx provides a variety of genetic diagnostic tests, screening solutions, and information with a focus on pediatrics, rare diseases for children and adults, and hereditary cancer screening. GeneDx Holdings' operating subsidiaries primarily serve healthcare professionals who work with their patients and bills third-party payors across the United States.

On January 9, 2023, Sema4 Holdings Corp. changed its name to GeneDx Holdings Corp. The Company's Class A common stock and public warrants are listed on the Nasdaq under the symbols "WGS" and "WGSWW," respectively.

Unless otherwise stated herein or unless the context otherwise requires, references in these notes to:

- "GeneDx Holdings" refer to GeneDx Holdings Corp., a Delaware corporation (f/k/a Sema4 Holdings Corp. ("Sema4 Holdings"));
- "Legacy GeneDx" refer to GeneDx, LLC, a Delaware limited liability company (formerly, GeneDx, Inc., a New Jersey corporation), which we acquired on April 29, 2022 (the "Acquisition");
- "Legacy Sema4" refer to Mount Sinai Genomics, Inc. d/b/a as Sema4, a Delaware corporation, which consummated the business combination with CM Life Sciences, Inc. ("CMLS") on July 22, 2021 (the "Business Combination"); and
- "we," "us" and "our," the "Company" and "GeneDx" refer, as the context requires, to:
 - Legacy Sema4 prior to the Business Combination, and GeneDx Holdings and its consolidated subsidiaries following the consummation of the Business Combination; and
 - Legacy GeneDx prior to the Acquisition, and GeneDx Holdings and its consolidated subsidiaries following the consummation of the Acquisition.
- "Company," or "GeneDx" refer to (i) Legacy Sema4 prior to the consummation of the Business Combination; and (ii) GeneDx Holdings and its subsidiaries following the consummation of the Business Combination (including, following the consummation of the Acquisition, Legacy GeneDx).

Emerging Growth Company

The Company is an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012. As such, the Company is eligible for exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies, including reduced reporting and extended transition periods to comply with new or revised accounting standards for public business entities. The Company has elected to avail itself of this exemption and, therefore, will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

The Company will remain an emerging growth company until the earliest of (1) December 31, 2025, (2) the last day of the fiscal year in which total annual gross revenue are at least \$1.235 billion, (3) the last day of the fiscal year in which the Company is deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which would occur if the market value of our Class A common stock held by non-affiliates exceeded \$700.0 million at the last business day of the second fiscal quarter of such year or (4) the date on which the Company has issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information and pursuant to the accounting disclosure rules and regulations of the Securities and Exchange Commission (the "SEC") regarding interim financial reporting. Accordingly, the condensed consolidated financial statements do not include all of the information and footnotes required by U.S. GAAP. In the opinion of management, the condensed consolidated financial

statements reflect all normal recurring adjustments considered necessary for a fair statement of the financial position and the results of operations of the Company for the interim periods presented. Interim results are not necessarily indicative of the results of operations or cash flows for a full year or any subsequent interim period. The accompanying condensed consolidated financial statements should be read in conjunction with the audited financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2022.

On May 4, 2023, at the commencement of trading, the Company effected a 1-for-33 reverse stock split (the "Reverse Stock Split"). Accordingly, all share and per share amounts for the periods presented in the accompanying condensed consolidated financial statements and notes thereto have been adjusted retroactively, where applicable, to reflect the reverse stock split. No fractional shares were issued in connection with the reverse stock split.

Certain reclassifications have been made to the prior year condensed consolidated financial statements in order to conform to the current year's presentation.

Use of Estimates

The preparation of our condensed consolidated financial statements in conformity with U.S. GAAP requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and the related disclosures at the date of the condensed consolidated financial statements as well as the reported amounts of revenues and expenses during the periods presented. The Company bases these estimates on current facts, historical and anticipated results, trends and various other assumptions that it believes are reasonable in the circumstances, including assumptions as to future events. These estimates include, but are not limited to, the transaction price for certain contracts with customers, potential or actual claims for recoupment from third-party payors, the capitalization of software costs, the valuation of stock-based awards, inventory, earn-out contingent liabilities and earn-out Restricted Stock Units ("RSUs"). Actual results could differ materially from those estimates, judgments and assumptions.

Summary of Significant Accounting Policies

There have been no material changes to the Company's critical accounting policies and estimates as compared to the critical accounting policies and estimates disclosed in the Company's audited consolidated financial statements and notes thereto included within its Annual Report on Form 10-K for the year ended December 31, 2022, other than the Company's policy for accounting for available-for-sale marketable securities discussed below.

Marketable Securities

The Company's investments in marketable securities are classified as available-for-sale and are reported at fair value. These marketable securities are classified as current assets as these investments are intended to be available to the Company for use in funding current operations. Unrealized gains and losses on available-for-sale securities are classified in accumulated other comprehensive gain (loss) within stockholders' equity. The unrealized gain at September 30, 2023 was nominal. Changes in the fair value of available-for-sale securities impact earnings only when such securities are sold, or an allowance for expected credit losses or impairment is recognized. We regularly evaluate our portfolio of marketable securities for expected credit losses and impairment. In making this judgement, we evaluate, among other things, the extent to which the fair value of a security is less than its amortized cost; the financial condition of the issuer, including the credit quality, and any changes thereto; and our intent to sell, or whether we will more likely than not be required to sell, the security before recovery of its amortized cost basis. Our assessment of whether a marketable security has a credit loss or is impaired could change in the future due to new developments or changes in assumptions related to any particular security.

Concentration of Credit Risk and Other Risks and Uncertainties

The Company assesses both the self-pay patient and, if applicable, the third-party payor that reimburses the Company on the patient's behalf when evaluating the concentration of credit risk. Significant patients and payors are those that represent more than 10% of the Company's total revenues for the period or accounts receivable balance at each respective balance sheet date. The significant concentrations of accounts receivable at September 30, 2023 and December 31, 2022 were primarily from managed care insurance companies, institutional billed accounts, and data arrangements. There was no individual patient or client that accounted for 10% or more of the Company's revenue or accounts receivable for any of the periods presented. The Company does not require collateral as a means to mitigate patient or payor credit risk.

For each significant payor, revenue as a percentage of total revenues and accounts receivable as a percentage of total accounts receivable are as follows:

	Revenue				Accounts Receivable	
	Three months ended September 30,		Nine months ended September 30,		September 30,	December 31,
	2023	2022	2023	2022	2023	2022
Payor B ⁽¹⁾	14%	27%	17%	29%	*	14%
Payor E	17%	15%	26%	12%	12%	14%

* less than 10%

(1) This payor includes multiple individual plans and the Company calculates and presents the aggregated value from all plans, which is consistent with the Company's portfolio approach used in accounting for diagnostic test revenue.

The Company is subject to a concentration of risk from a limited number of suppliers for certain reagents and laboratory supplies. One supplier accounted for approximately 4% and 16% of purchases for the three months ended September 30, 2023 and 2022, respectively, and 11% and 13% for the nine months ended September 30, 2023 and 2022, respectively. A separate supplier accounted for approximately 8% and 5% of purchases for the three months ended September 30, 2023 and 2022, respectively and 10% and 2% for the nine months ended September 30, 2023 and 2022. This risk is managed by maintaining a target quantity of surplus stock. Alternative suppliers are available for some or all of these reagents and supplies.

Warrant Liability (Legacy Sema4)

At the consummation of the Business Combination in July 2021, there were 666,516 warrants to purchase shares of Class A common stock outstanding, including 447,223 public warrants and 219,293 private placement warrants. At September 30, 2023, there were 666,515 warrants to purchase shares of Class A common stock outstanding, including 448,442 public warrants and 218,073 private placement warrants outstanding. Each warrant expires five years after the Business Combination or earlier upon redemption or liquidation, and entitles the holder to purchase one share of Class A common stock at an exercise price of \$379.50 per share, subject to adjustment, at any time commencing on September 4, 2021.

The Company may redeem the outstanding public warrants if the price per share of the Class A common stock equals or exceeds \$594.00 as described below:

- in whole and not in part;
- at a price of \$0.33 per public warrant;
- upon not less than 30 days' prior written notice of redemption to each warrant holder; and
- if, and only if, the closing price of the Class A common stock equals or exceeds \$594.00 per share (as adjusted) for any 20 trading days within a 30-trading day period ending three trading days before sending the notice of redemption to warrant holders.

The Company may redeem the outstanding public warrants if the price per share of the Class A common stock equals or exceeds \$330.00 as described below:

- in whole and not in part;
- at \$3.30 per warrant upon a minimum of 30 days' prior written notice of redemption provided that holders will be able to exercise their warrants on a cashless basis prior to redemption and receive that number of shares based on the redemption date and the fair market value of the common stock;
- if, and only if, the closing price of the Class A common stock equals or exceeds \$330.00 per share (as adjusted) for any 20 trading days within the 30-trading day period ending three trading days before the Company sends the notice of redemption to the warrant holders; and
- if the closing price of the common stock for any 20 trading days within a 30-trading day period ending three trading days before the Company sends notice of redemption to the warrant holders is less than \$594.00 per share (as adjusted), the private placement warrants must also be concurrently called for redemption on the same terms as the outstanding public warrants, as described above.

The private placement warrants were issued to CMLS Holdings, LLC, Mr. Munib Islam, Dr. Emily Leproust and Mr. Nat Turner, and are identical to the public warrants underlying the units sold in the initial public offering, except that (1) the private placement warrants and the common stock issuable upon the exercise of the private placement warrants would not

be transferable, assignable or salable until 30 days after the completion of a Business Combination, subject to certain limited exceptions, (2) the private placement warrants are exercisable on a cashless basis, (3) the private placement warrants are non-redeemable (except as described above, upon a redemption of warrants when the price per share of Class A common stock equals or exceeds \$330.00) so long as they are held by the initial purchasers or their permitted transferees, and (4) the holders of the private placement warrants and the common stock issuable upon the exercise of the private placement warrants have certain registration rights. If the private placement warrants are held by someone other than the initial purchasers or their permitted transferees, the private placement warrants will be redeemable by the Company and exercisable by such holders on the same basis as the public warrants.

The Company accounts for warrants as liability-classified instruments based on an assessment of the warrant terms and applicable authoritative guidance in accordance with ASC 480-Distinguishing Liabilities from Equity (“ASC 480”) and ASC 815-Derivatives and Hedging (“ASC 815”). The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, whether the warrants meet the definition of a liability pursuant to ASC 480, and whether the warrants meet all of the requirements for equity classification under ASC 815. This assessment is conducted at the time of warrant issuance and at each subsequent quarterly period end date while the warrants are outstanding.

Contingent Consideration (Legacy GeneDx)

In connection with the Acquisition, up to \$150 million of contingent payments will be payable to OPKO Health, Inc. (“OPKO”) in cash and/or shares of Company’s Class A common stock with such mix to be determined in the Company’s sole discretion, based upon achievement of 2022 and 2023 revenue milestones, pursuant to the Acquisition Merger Agreement (as defined below) (the “Milestone Payments”). If the Company elects to pay in shares of Class A common stock, the Acquisition Merger Agreement provides that the shares issues are to be valued at \$160.38 per share for a maximum of 935,280 shares.

Subject to the terms and conditions of the Acquisition Merger Agreement, (a) the first Milestone Payment was paid out in full through the issuance of 701,460 shares valued at \$112.5 million in April 2023 as the revenue of the Legacy GeneDx group for the fiscal year 2022 exceeded \$163 million and (b) the second Milestone Payment of \$37.5 million will become due and payable if the revenue of the Legacy GeneDx group for the fiscal year 2023 equals or exceeds \$219 million (each of clauses (a) and (b), a “Milestone Event”); provided that 80% of the second Milestone Payment will become payable in respect of the second milestone period if the Legacy GeneDx group achieves 90% of the Milestone Event revenue target for such period, which amount will scale on a linear basis up to 100% of the second Milestone Payment at 100% of the revenue target. The first Milestone Payment resulted in the issuance of 701,460 shares of the Company’s Class A common stock on April 14, 2023. If the Company elects to pay in shares of Class A common stock, the second Milestone Payment would require the issuance of up to 233,820 shares of the Company’s Class A common stock. The fair value of the second Milestone Payment was estimated using a Monte Carlo simulation valuation model and was determined to be zero at September 30, 2023.

Earn-out Contingent Liability

In connection with the Business Combination, all Legacy Sema4 stockholders and option holders at that time became entitled to a pro rata share of 576,412 earn-out shares and earn-out RSUs. In July 2023, the Company’s obligations to issue earn-out shares pursuant to that certain Agreement and Plan of Merger (as amended, the “Business Combination Merger Agreement”), dated February 9, 2021, and shares pursuant to the earn-out RSUs expired as a result of the vesting conditions not being achieved. Based on an assessment of the earn-out shares for the Legacy Sema4 stockholders, the Company considered ASC 480 and ASC 815 and accounted for the earn-out shares as a liability. The Company subsequently measured the fair value of the liability at each reporting period and changes in fair value were recorded as a component of non-operating income (expenses), net, in the condensed consolidated statements of operations and comprehensive loss.

The fair value of the earn-out shares issued to the Legacy Sema4 stockholders at September 30, 2023 was estimated using a Monte Carlo simulation valuation model and was determined to be zero.

As for the earn-out RSUs for the Legacy Sema4 option holders, a total of 81,819 RSUs were granted on December 9, 2021. The vesting of such arrangement was conditioned on the satisfaction of both a service requirement and on the satisfaction of a market-based requirement. The market-based requirement would have been achieved if the Company’s stock price was greater than or equal to \$429 (Triggering Event I), \$495 (Triggering Event II) and \$594 (Triggering Event III) during the applicable performance period, based on the volume-weighted average price for a period of at least 20 days out of 30 consecutive trading days. Therefore, the Company accounted for this arrangement in accordance with ASC 718- Compensation — Stock Compensation (“ASC 718”) and stock-based compensation expense was recognized over the

longer of the expected achievement period for the market-based requirement and the service requirement. In the event that any earn-out RSUs were forfeited as a result of a failure to achieve the service requirement, the underlying shares were reallocated on an annual basis to the Legacy Sema4 stockholders and to the Legacy Sema4 option holders who remained employed as of the date of such reallocation. The Company accounted for the re-allocations to Legacy Sema4 option holders as new grants. The Company recorded \$0.8 million reduction in stock-based compensation expense in relation to the forfeiture of the earn-out RSUs by the Legacy Sema4 option holders for the nine months ended September 30, 2023. No forfeitures were recorded for the three and nine months ended September 30, 2023 and the three and nine months ended September 30, 2022.

Recently Adopted Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (“ASU 2016-13”). The new credit losses standard changes the impairment model for most financial assets and certain other instruments. For trade and other receivables, contract assets recognized as a result of applying ASC 606, loans and certain other instruments, entities will be required to use a new forward looking “expected loss” model that generally will result in earlier recognition of credit losses than under today’s incurred loss model. The Company adopted ASU 2016-13 effective January 1, 2023 and the adoption did not have material impact in the condensed consolidated statements of operations and comprehensive loss.

Recently Issued Accounting Pronouncements Not Yet Adopted

The Company has reviewed the recently issued Accounting Standards Update accounting pronouncements and does not believe that the adoption of any such pronouncements will have a material impact on its financial statements or related disclosures.

3. Business Combinations

Legacy GeneDx Acquisition

On April 29, 2022, the Company completed the Acquisition. At the closing of the Acquisition, the Company paid OPKO gross cash consideration of \$150 million (before deduction of transaction expenses and other customary purchase price adjustments) and issued to OPKO 2.4 million shares of the Company’s Class A common stock (\$172 million based on the closing date share price of \$70.95 per share). A portion of this cash and stock consideration was held in escrow for a one year escrow period ending in May 2023. On May 15, 2023, the Company completed the net working capital settlement with OPKO and released the remaining escrowed amount recorded in restricted cash. In addition, a portion of the \$150 million was payable following the closing of the Acquisition due to the achievement of the first revenue-based milestone for the fiscal year ended December 31, 2022 and the remaining Milestone Payment of up to \$37.5 million will be payable if certain revenue-based milestones are achieved for the fiscal year ending December 31, 2023. During the nine months ended September 30, 2023, the first Milestone Payment became due and payable in full and resulted in the issuance of 701,460 shares of the Company’s Class A common stock on April 14, 2023. The remaining Milestone Payment, if and to the extent earned under the terms of the Acquisition Merger Agreement, will be satisfied through the payment and/or issuance of a combination of cash and shares of the Company’s Class A common stock (valued at \$160.38 per share, subject to adjustment for stock splits and similar changes), with such mix to be determined in the Company’s sole discretion. Concurrently with the closing of the Acquisition, the Company also issued and sold in a private placement 1,515,152 shares of the Company’s Class A common stock to certain institutional investors for aggregate gross proceeds of \$200 million (the “Acquisition PIPE Investment”).

The following table presents the net purchase price and the fair values of the assets and liabilities of Legacy GeneDx (in thousands):

Cash and cash equivalents	\$	—
Accounts receivables		21,651
Inventory		6,210
Prepaid expenses		4,671
Other current assets		320
Property and equipment		29,509
Other non-current assets		6,464
Trade names and trademarks		50,000
Developed technology		48,000
Customer relationships		98,000
Accounts payable and accrued expenses		(12,862)
Other current liabilities		(15,781)
Deferred tax liabilities		(51,779)
Long-term lease liabilities		(5,798)
Fair value of net assets acquired		178,605
Goodwill ⁽¹⁾		185,871
Aggregate purchase price	\$	364,476

(1) Goodwill represents the excess of the purchase price over the fair value of the net tangible and intangible assets acquired. See Note 9, “Goodwill and Intangible Assets” for more detail.

The amounts above represent the fair value estimates at the time of the Acquisition and adjustments during the measurement period which is complete.

4. Revenue Recognition

Disaggregated revenue

The following table summarizes the Company’s disaggregated revenue by payor category (in thousands):

	Three months ended September 30,			
	2023			2022
	GeneDx	Legacy Sema4	Consolidated	Consolidated
Diagnostic test revenue:				
Patients with third-party insurance	\$ 32,825	\$ 2,950	\$ 35,775	\$ 64,391
Institutional customers	15,720	—	15,720	15,244
Self-pay patients	457	3	460	1,855
Total diagnostic test revenue	49,002	2,953	51,955	81,490
Other revenue	1,348	—	1,348	1,744
Total	\$ 50,350	\$ 2,953	\$ 53,303	\$ 83,234

	Nine months ended September 30,			
	2023			2022
	GeneDx	Legacy Sema4	Consolidated	Consolidated
Diagnostic test revenue:				
Patients with third-party insurance	\$ 82,801	\$ 8,876	\$ 91,677	\$ 133,251
Institutional customers	47,528	—	47,528	30,395
Self-pay patients	1,232	3	1,235	4,343
Total diagnostic test revenue	131,561	8,879	140,440	167,989
Other revenue	4,708	—	4,708	5,355
Total	\$ 136,269	\$ 8,879	\$ 145,148	\$ 173,344

Reassessment of variable consideration

Subsequent changes to the estimate of the transaction price, determined on a portfolio basis when applicable, are generally recorded as adjustments to revenue in the period of the change. The Company updates estimated variable consideration quarterly.

For the three months ended September 30, 2023, the quarterly change in estimate resulted in a net \$3.0 million which included the partial release of a third party payor reserve established in prior periods. During the nine months ended September 30, 2022, the quarterly change in estimate resulted in a net \$30.1 million decrease to revenue for tests in which the performance obligation of delivering the test results was met in prior periods, with \$24.2 million of this decrease relating to fiscal years ended December 31, 2021 and prior. The changes in estimate are a result of changes in the estimated transaction price due to contractual adjustments, obtaining updated information from payors and patients that was unknown at the time the performance obligation was met and settlements with third party payors.

Certain payor matters

As noted above, third-party payors, including government programs, may decide to deny payment or seek to recoup payments for tests performed by the Company that they contend were improperly billed, not medically necessary or against their coverage determinations, or for which they believe they have otherwise overpaid, including as a result of their own error. As a result, the Company may be required to refund payments already received, and the Company's revenues may be subject to retroactive adjustment as a result of these factors among others, including without limitation, differing interpretations of billing and coding guidance, and changes by government agencies and payors in interpretations, requirements, policies and/or "conditions of participation" in various programs. The Company processes requests for recoupment from third-party payors in the ordinary course of its business, and it is likely that the Company will continue to do so in the future. If a third-party payor denies payment for testing or recoups money from the Company in a later period, reimbursement and the associated recognition of revenue for the Company's testing services could decline.

As an integral part of the Company's billing compliance program, in the third quarter of 2022, the Company instituted a third-party review of billing claims and compliance practices, and initiated improvements including implementing a package of new billing compliance policies and procedures and strengthening the Company's billing compliance team at Legacy Sema4. From time to time, the Company may have an obligation to reimburse Medicare, Medicaid, and third-party payors for overpayments regardless of fault. Settlements with third-party payors for retroactive adjustments due to audits, reviews, or investigations are considered variable consideration and are included in the determination of the estimated transaction price for providing services. These settlements are estimated based on the terms of the payment agreement with the payor, correspondence from the payor, the Company's historical settlement activity (if any), and the Company's assessment of the probability a significant reversal of cumulative revenue recognized will occur when the uncertainty is subsequently resolved. Estimated settlements are adjusted in future periods as such adjustments become known (that is, if new information becomes available), or as years are settled or are no longer subject to such audits, reviews, and investigations.

Throughout 2022, the Company was engaged in discussions with one of its third-party payors (the "Payor") regarding certain overpayments to Legacy Sema4. On December 30, 2022, the Company entered into a settlement agreement with the Payor in order to settle the claims related to coverage and billing matters allegedly resulting in the overpayments to Legacy Sema4 by the Payor to the Company (the "Disputed Claims"). Under the settlement agreement, \$42.0 million is to be paid by the Company to the Payor in a series of installments over the next four years with the final installment payment scheduled to be made on or before June 30, 2026. The first installment payment of \$15.0 million was made on December

31, 2022 and the next installment of \$5.0 million is due in December 2023. In consideration for these payments, the Payor has agreed to provide releases of the Disputed Claims, which releases became effective on or about March 31, 2023.

As a result of this matter, and in connection with a review of certain billing policies and procedures undertaken by management, the Company considered the need to establish reserves for potential recoupments of payments previously made by third-party payors. At September 30, 2023, the Company continued to carry liabilities that were initially established at June 30, 2022, as a result of this matter and other potential settlements with payors, as adjusted at September 30, 2023, based on the current facts and an evaluation of anticipated results that the Company believes reasonable for all potential recoupments for all third-party payors combined. At September 30, 2023 and December 31, 2022, \$32.2 million and \$39.0 million of liabilities were recorded in accounts payable and accrued expenses and other liabilities, respectively. See Note 15, “*Supplemental Financial Information*”. The Company uses estimates, judgments, and assumptions to assess whether it is probable that a significant reversal in the amount of cumulative revenue may occur in future periods, based upon information presently available. These estimates are subject to change. In addition, as discussed above, the Company has made certain adjustments to its estimated variable consideration as result of this matter and other potential settlements with payors.

Remaining performance obligations

For certain long-term collaboration service agreements with original expected durations of more than one year, the Company’s obligations pursuant to such agreement represents partially unsatisfied performance obligations at September 30, 2023. The revenues remaining under the agreements are estimated to be approximately \$3.9 million. The Company expects to recognize the majority of this revenue over approximately the next 2 years.

Costs to fulfill contracts

Costs associated with fulfilling the Company’s performance obligations pursuant to its collaboration service agreements include costs for services that are subcontracted to Icahn School of Medicine at Mount Sinai (“ISMMS”). Amounts prepaid are expensed in line with the pattern of revenue recognition. Prepayment of amounts prior to the costs being incurred are recognized in the condensed consolidated balance sheets as current or non-current based upon forecasted performance.

At September 30, 2023 and December 31, 2022, the Company had outstanding deferred costs to fulfill contracts of less than \$0.4 million and \$0.3 million, respectively, which were recorded as prepaid expenses and other current assets in the condensed consolidated balance sheets. The Company expect to make additional payments to ISMMS under an amended subcontract agreement with ISMMS.

Amortization of deferred costs was \$0.4 million and \$0.5 million for the three months ended and \$1.5 million and \$1.5 million for the nine months ended September 30, 2023 and 2022, respectively. The amortization costs were recorded in the cost of services in the condensed consolidated statements of operations and comprehensive loss.

5. Fair Value Measurements

Financial assets and liabilities are recorded at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. For further information regarding the Company’s fair value measurements, see Note 2, “*Summary of Significant Accounting Policies*” included within our Annual Report on Form 10-K for the year ended December 31, 2022.

The following tables set forth the fair value of financial instruments that were measured at fair value on a recurring basis (in thousands):

	September 30, 2023				December 31, 2022			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Financial Liabilities:								
Public warrant liability	\$ 444	\$ 444	\$ —	\$ —	\$ 280	\$ 280	\$ —	\$ —
Private warrant liability	216	—	216	—	138	—	138	—
Contingent consideration based on milestone achievement	—	—	—	—	7,619	—	—	7,619
Total financial liabilities	\$ 660	\$ 444	\$ 216	\$ —	\$ 8,037	\$ 280	\$ 138	\$ 7,619

The Company's loan from the Connecticut Department of Economic and Community Development ("DECD") is classified within Level 2 of the fair value hierarchy. The loan was recorded at its carrying value of \$6.3 million at December 31, 2022 and September 30, 2023 with \$0.2 million of recorded in other current liabilities on the consolidated balance sheets at September 30, 2023. The fair value was \$4.8 million, which is estimated based on discounted cash flows using the yields of similar debt instruments of other companies with similar credit profiles.

Of the \$114.3 million cash, cash equivalents, and marketable securities presented in the condensed consolidated balance sheets at September 30, 2023, \$80.1 million was in money market funds, \$6.1 million in U.S. treasury bonds and \$21.1 million in corporate and municipal bonds, all of which are classified within Level 1 of the fair value hierarchy as the fair value was based on quoted prices in active markets. The \$26.9 million marketable securities presented in the condensed consolidated balance sheet at September 30, 2023 have maturity dates ranging from 2024 through 2026. All of these marketable securities are classified as current assets as these investments are intended to be available to the Company for use in funding current operations. Of the \$123.9 million cash and cash equivalents presented on the consolidated balance sheets at December 31, 2022, \$16.9 million was in money market funds and classified within Level 1 of the fair value hierarchy as the fair value was based on quoted prices in active markets.

The Company's outstanding warrants include publicly traded warrants (the "Public Warrants") which were originally issued in CMLS's initial public offering ("the IPO") and warrants sold in a private placement to CMLS Holdings LLC (the "Private Warrants"). The Company evaluated its warrants under ASC 815-40-Derivatives and Hedging—Contracts in Entity's Own Equity, and concluded that they do not meet the criteria to be classified in stockholders' equity. Since the Public Warrants and Private Warrants meet the definition of a derivative under ASC 815, the Company recorded these warrants as non-current liabilities on the balance sheet at fair value upon the closing of the Business Combination, with subsequent changes in their respective fair values recognized in non-operating income (expenses), net in the condensed consolidated statements of operations and comprehensive loss at each reporting date. At September 30, 2023, the Public Warrants are classified within Level 1 of the fair value hierarchy as they are traded in active markets. The Private Warrants are classified within Level 2 of the fair value hierarchy as management determined the fair value of each Private Warrant is the same as that of a Public Warrant because the terms are substantially the same. A loss of \$0.4 million and \$0.2 million was recorded for the three and nine months ended September 30, 2023 within the change in fair market value of warrant and earn-out contingent liabilities in the consolidated statements of operations and comprehensive loss based on remeasurement performed at the period end date.

The earn-out contingent liabilities include the Company's contingent obligation to issue earn-out shares for Legacy Sema4 stockholders (which obligation expired in July 2023) ("Earn-out Shares") as well as the Company's obligation to pay out the first Milestone Payment of \$112.5 million to OKPO and the contingent obligation to make an additional second Milestone Payment of up to \$37.5 million to OPKO if a certain revenue-based milestone is achieved for the fiscal year ended December 31, 2023.

The fair value of the Earn-out Shares was determined based on a Monte Carlo simulation valuation model. At September 30, 2023 and December 31, 2022, the fair value was zero. During the nine months ended September 30, 2022, the Company recognized a \$10.2 million gain reflecting the change in fair market value of warrant and earn-out contingent liabilities in the condensed consolidated statements of operations and comprehensive loss.

The Milestone Payment contingent liability represents additional acquisition consideration to pay up to \$37.5 million based on the achievement of Legacy GeneDx revenue-based milestone in fiscal year 2023 and the obligation to payout the first milestone of \$112.5 million in shares of the Company's Class A common stock. Subject to the terms and conditions of the Acquisition Merger Agreement, (a) the first Milestone Payment of \$112.5 million became due and payable in full as Legacy GeneDx revenue exceeded \$163 million for the fiscal year 2022 and (b) the second Milestone Payment of \$37.5 million will become due and payable if the revenue of the Legacy GeneDx group for the fiscal year 2023 equals or exceeds \$219 million; provided that 80% of the second Milestone Payment will become payable in respect of the second milestone period if the Legacy GeneDx group achieves 90% of the Milestone Event revenue target for such period, which amount will scale on a linear basis up to 100% of the second Milestone Payment at 100% of the revenue target. The first Milestone Payment resulted in the issuance of 701,460 shares of the Company's Class A common stock on April 14, 2023. The second Milestone Payment will be satisfied through the payment and/or issuance of a combination of cash and shares of the Company's Class A common stock (valued at \$160.38 per share), with such mix to be determined at the Company's sole discretion.

The Company determined and recorded the fair value of the Milestone Payments as zero at September 30, 2023. For the three and nine months ended September 30, 2023, a gain of \$1.0 million and a gain of \$0.9 million was recorded in the

change in fair market value of warrant and earn-out contingent liabilities, respectively, in the condensed consolidated statements of operations and comprehensive loss based on re-measurement performed at the period end date. The fair value of the second milestone was determined based on a Monte Carlo simulation valuation model and the key assumptions include revenue projections, revenue volatility of 18%. The fair value of the first milestone was determined based on the Company's expectation to settle the liability in shares and share price of \$5.96 per share.

The earn-out contingent liabilities are categorized as Level 3 of the fair value hierarchy as the Company utilizes unobservable inputs in estimating the fair value. There were no transfers between Level 1, Level 2 and Level 3 during the periods presented.

6. Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	September 30, 2023	December 31, 2022
Laboratory equipment	\$ 38,126	\$ 41,255
Equipment under finance leases	15,328	21,384
Leasehold improvements	32,269	35,561
Capitalized software	32,171	32,171
Building under finance lease	4,530	6,276
Construction in-progress	4,601	3,386
Computer equipment	9,170	9,177
Furniture, fixtures and other equipment	3,529	3,777
Total property and equipment	139,724	152,987
Less: accumulated depreciation and amortization	(103,978)	(101,460)
Property and equipment, net	\$ 35,746	\$ 51,527

For the three months ended September 30, 2023 and 2022, depreciation and amortization expense was \$5.2 million and \$7.0 million, respectively. For the nine months ended September 30, 2023 and 2022, depreciation and amortization expense was \$17.1 million and \$19.4 million, respectively. This included software amortization expense of \$0.2 million and \$1.7 million for the three months ended and \$5.9 million and \$5.0 million for the nine months ended September 30, 2023 and 2022, respectively. For intangible amortization, see Note 9, "Goodwill and Intangible Assets".

For the nine months ended September 30, 2023, the Company recorded a \$3.4 million charge to accelerate the amortization for certain capitalized software projects associated with Legacy Sema4 that are not expected to be utilized.

For the nine months ended September 30, 2023, the Company recorded a \$3.0 million gain on sale of assets during the period associated with the closure of Legacy Sema4 facilities.

In March 2023, the Company entered into an agreement with ISMMS to use its commercially reasonable efforts to exercise the early termination option existing in the lease agreement between ISMMS and the lessor. This triggered lease modification accounting to shorten the total lease term, from a total of 23 years remaining to an estimated 13 years remaining, as the Company intends to exercise this option. The Company is required to make a payment of \$8.4 million as an early termination fee if it chooses to exercise this option. This modification resulted in an increase in the operating lease liability by \$2.0 million and an increase in the finance lease liability by \$2.6 million, respectively, due to reassessment and reapplication of the incremental borrowing rate at the lease modification date.

During the third quarter of 2023, the Company identified additional indicators of impairment related to the ISMMS sublease agreements. As a result, the Company recorded an \$8.3 million non-cash impairment charge in its condensed consolidated statements of operations and comprehensive loss for the three months ended September 30, 2023, of which \$4.8 million was allocated to the right-of-use asset associated with the sublease. For the nine months ended September 30, 2023, the Company recorded a \$9.9 million non-cash impairment charge in its condensed consolidated statements of operations and comprehensive loss, of which \$5.6 million was allocated to the right-of-use asset associated with the sublease, which included indicators of impairment related to the ISMMS sublease agreements during the first quarter of 2023.

Depreciation and amortization expense is included within the condensed consolidated statements of operations and comprehensive loss as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Cost of services	\$ 1,613	\$ 5,203	\$ 3,435	\$ 11,335
Research and development	283	1,973	5,791	5,811
Selling and marketing	—	1	2	3
General and administrative	3,270	(182)	7,894	2,276
Total depreciation and amortization expenses	\$ 5,166	\$ 6,995	\$ 17,122	\$ 19,425

7. Related Party Transactions

Related party revenues

Total related party revenues are included within diagnostic test revenue and other revenue in the condensed consolidated statements of operations and comprehensive loss as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Diagnostic test revenue	\$ 813	\$ 809	\$ 2,457	\$ 1,392
Other revenue	—	149	—	296
Total related party revenues	\$ 813	\$ 958	\$ 2,457	\$ 1,688

Related party revenues primarily include diagnostic testing revenues generated by GeneDx from BioReference Laboratories, Inc., which is a subsidiary of OPKO. The prices charged represent market rates. Revenue recorded from this contract was \$0.7 million and \$0.6 million for the three months ended and \$2.1 million and \$1.0 million for the nine months ended September 30, 2023 and 2022, respectively.

Related party costs

Total related party costs are included within cost of services and other, net in the condensed consolidated statements of operations and comprehensive loss as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Cost of services	\$ 1,305	\$ 1,103	\$ 3,769	\$ 3,507
Other, net	1,782	1,697	4,581	4,712
Total related party costs	\$ 3,087	\$ 2,800	\$ 8,350	\$ 8,219

On June 1, 2017, the Company signed a contribution and funding agreement and other agreements with ISMMS, whereby ISMMS contributed certain assets and liabilities related to the Company's operations, provided certain services to the Company, and also committed to funding the Company up to \$55.0 million in future capital contributions in exchange for equity in the Company, of which \$55.0 million was drawn at December 31, 2019. Following the transaction, the Company commenced operations and began providing the services and performing research.

Expenses recognized pursuant to service arrangements with ISMMS, including certain sub-lease arrangements the Company has through ISMMS, totaled \$2.1 million and \$2.0 million for the three months ended and \$5.4 million and \$6.2 million for the nine months ended September 30, 2023 and 2022, respectively. These amounts include certain lease expenses the Company incurs and pay to ISMMS for certain sub-lease arrangements. They are included in either cost of services or related party expenses in the condensed consolidated statements of operations and comprehensive loss depending on the particular activity to which the costs relate. Payables due to ISMMS for the other service arrangements were \$3.8 million and \$2.4 million at September 30, 2023 and December 31, 2022, respectively, these amounts include unpaid lease payments the Company accrued for. The payments to be made to ISMMS and are included within due to related parties on the Company's condensed consolidated balance sheets.

Additionally, the Company has purchased \$2.2 million of diagnostic testing kits and materials and \$0.6 million and \$1.4 million was recorded in cost of services for the three and nine months ended September 30, 2023, respectively, from an affiliate of a member of the Board of Directors who has served in the role since July 2021. The prices paid represent market rates. Payables due were \$0.1 million and \$0.4 million at September 30, 2023 and December 31, 2022, respectively.

Legacy GeneDx and OPKO entered into a Transition Services Agreement dated at April 29, 2022 (the “OPKO TSA”) pursuant to which OPKO agreed to provide, at cost, certain services in support of the Acquisition of the Legacy GeneDx business through December 31, 2022, subject to certain limited exceptions, in order to facilitate the transactions contemplated by the Acquisition Merger Agreement, including human resources, information technology support, and finance and accounting. The Company recorded \$0.3 million and \$0.5 million of expense for the three months ended and \$1.1 million and \$0.8 million for the nine months ended September 30, 2023 and 2022, respectively, related to the agreement. At September 30, 2023 there were less than \$0.1 million of unpaid costs, and at December 31, 2022 \$0.4 million was unpaid and included in due to related parties in condensed consolidated balance sheets.

During the nine months ended September 30, 2023, the Company recorded a reduction of \$1.3 million of receivables from OPKO related to the Acquisition closing working capital adjustment that was previously recorded at December 31, 2022. The amount was presented as prepaid expenses and other current assets in condensed consolidated balance sheets at December 31, 2022.

8. Long-Term Debt

At September 30, 2023, long-term debt matures as follows (in thousands):

2023 (remainder of year)	\$	—
2024		497
2025		1,211
2026		1,234
2027		1,260
Thereafter		2,048
Total debt		6,250
Less: current portion of long-term debt		(198)
Total long-term debt, net of current maturities	\$	6,052

Connecticut Department of Economic and Community Development Funding Commitment

In June 2017, ISMMS assigned a loan funding commitment from the DECD to the Company (the “DECD Loan Agreement”) to support the Genetic Sequencing Laboratory Project in Branford, Connecticut, with funding based on the achievement of certain project development phases. The DECD Loan Agreement provided for a total loan commitment of \$15.5 million at a fixed annual interest rate of 2.0% for a term of 10 years. The Company was required to make interest-only payments through July 2023 and principal and interest payments commencing in August 2023. The final payment of principal and interest was due in July 2028. However, under the terms of the DECD Loan Agreement, the DECD granted a partial principal loan forgiveness of up to \$12.3 million in the aggregate. Such forgiveness was contingent upon the Company achieving certain job creation and retention milestones and \$4.5 million had been forgiven at December 31, 2022. This commitment was collateralized by a security interest in certain machinery and equipment the Company acquired from ISMMS, as defined in a separate security agreement.

In January 2023, the Company amended the DECD Loan Agreement, which resulted in the Company agreeing to pay \$2.0 million in principal, obtaining \$2.8 million in debt forgiveness for achieving its Phase 2 job milestone, and agreeing to two new forgiveness milestone targets for its Phase 3 job milestone (eligible for \$2 million in forgiveness) and a final phase job milestone (eligible for \$1 million in forgiveness) (the “2022 Amended DECD Loan Agreement”). Upon execution of this amendment, the Company paid the \$2.0 million in principal and received \$2.75 million in debt forgiveness, both of which were classified as current liabilities at December 31, 2022 and the Company recognized the debt forgiveness as other (expense) income, net in the condensed consolidated statements of operations and comprehensive loss for the nine months ended September 30, 2023. The terms of the 2022 Amended DECD Loan Agreement require the Company to make interest-only payments through July 2024 and principal and interest payments commencing in August 2024 through July 2029 at the same fixed annual interest rate of 2.0%. The other terms of the 2022 Amended DECD Loan Agreement remained the same.

The outstanding loan balance from the 2022 Amended DECD Loan Agreement was \$6.3 million at September 30, 2023.

Entry into Perceptive Term Loan Facility

Subsequent to September 30, 2023, on October 27, 2023, we entered into a Credit Agreement and Guaranty (the “Credit Agreement”) with Perceptive Credit Holdings IV, LP, as lender and administrative agent (“Perceptive”), which provides for a senior secured delayed draw term loan facility in an aggregate principal amount of up to \$75.0 million (the “Perceptive Term Loan Facility”). An initial tranche of \$50.0 million (the “Tranche A Loan”) was funded under the Perceptive Term Loan Facility on the Closing Date. In addition to the Tranche A Loan, the Perceptive Term Loan Facility includes an additional tranche of \$25.0 million (the “Tranche B Loan,” and together with the Tranche A Loan, the “Term Loans”), which will be accessible by us so long as we satisfy certain customary conditions precedent, including a specified revenue milestone (the funding date of the Tranche B Loan, the “Tranche B Borrowing Date”). The Perceptive Term Loan Facility has a maturity date of October 27, 2028 (the “Maturity Date”) and provides for an interest-only period during the term of the loan with principal due at the maturity date. Our net proceeds from the Tranche A Loan were approximately \$49 million, after deducting estimated debt issuance costs and expenses.

Interest Rate

The Perceptive Term Loan Facility will accrue interest at an annual rate equal to the sum of (a) Term SOFR (as defined in the Credit Agreement) and (b) an applicable margin of 7.5% (the “Applicable Margin”). Accrued interest on the Term Loans is payable monthly in arrears. Upon an Event of Default (as defined in the Credit Agreement), the Applicable Margin will automatically increase by an additional 4% per annum.

Amortization and Prepayment

Prior to the Maturity Date, there will be no scheduled principal payments under the Perceptive Term Loan Facility. On the Maturity Date, the Company is required to pay Perceptive the aggregate outstanding principal amount of the Term Loans and all accrued and unpaid interest thereon. The Term Loans may be prepaid at any time, subject to a prepayment premium equal to 0% to 10% of the aggregate outstanding principal amount being prepaid, depending on the date of prepayment.

Security Instruments and Warrant

In connection with the Credit Agreement, the Company also entered into a Security Agreement (the “Security Agreement”), dated as of the Closing Date, with Perceptive, pursuant to which all of its obligations under the Credit Agreement are secured by a first lien perfected security interest on substantially all of its existing and after-acquired assets, subject to customary exceptions.

In addition, on the Closing Date, as consideration for the Credit Agreement, the Company issued to Perceptive a warrant (the “Warrant”) to purchase up to 1,200,000 shares (the “Warrant Shares”) of its Class A common stock. 800,000 Warrant Shares (the “Initial Warrant Shares”) vested and became exercisable on the Closing Date and 400,000 Warrant Shares (the “Additional Warrant Shares”) will vest and become exercisable on the Tranche B Borrowing Date. The per share exercise price for the Initial Warrant Shares is \$3.1752 (the “Initial Warrant Exercise Price”), which is equal to the 10-day volume weighted average price (the “10-day VWAP”) of the Company’s Class A common stock at the end of the business day immediately prior to the Closing Date, and the per share exercise price for the Additional Warrant Shares will be equal to the lower of (a) the Initial Warrant Exercise Price or (b) the 10-day VWAP ending on the end of the business day immediately preceding the Tranche B Borrowing Date. The Warrant will be exercisable, in whole or in part, until the 10th anniversary of the applicable vesting date.

Termination of Loan and Security Agreement

On November 15, 2021 the Company and Sema4 OpCo, Inc. (together, the “Borrower”) entered into a Loan and Security Agreement (the “SVB Agreement”) with Silicon Valley Bank (“SVB”) which provided for a revolving credit facility (the “Revolver”) up to an aggregate principal amount of \$125.0 million, including a sublimit of \$20.0 million for Letters of Credit (as such terms are defined in the SVB Agreement). No amounts had been drawn under the SVB Agreement at September 30, 2023.

Subsequent to September 30, 2023, in connection with the entry into the Credit Agreement, the SVB Agreement, dated as of November 15, 2021 (“SVB Loan and Security Agreement”), with SVB was terminated, effective as of the Closing Date, and SVB’s security interest in the Company’s assets and property was released.

9. Goodwill and Intangible Assets

As discussed in Note 3, “*Business Combinations*”, upon the Acquisition of Legacy GeneDx in April 2022, the Company recorded initial goodwill of \$185.9 million through its preliminary purchase allocation. The purchase price allocation for acquired businesses may be modified for up to one year from the date of acquisition if additional facts or circumstances lead to changes in the Company’s preliminary purchase accounting estimates. The Company is complete with measurement period adjustments at April 29, 2023.

The changes in the carrying amounts of goodwill were as follows (in thousands):

Balance at December 31, 2022	\$	—
Additions		—
Measurement period adjustments		478
Impairment charges		(478)
Balance at September 30, 2023	\$	—

The following table reflects the carrying values and remaining useful lives of the acquired intangible assets identified based on the Company’s preliminary purchase accounting assessments at September 30, 2023 (in thousands):

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value
Tradenames and trademarks	\$ 50,000	\$ 4,427	\$ 45,573
Developed technology	48,000	8,500	39,500
Customer relationships	98,000	6,942	91,058
	\$ 196,000	\$ 19,869	\$ 176,131

Amortization expense for tradenames and trademarks of \$0.7 million and \$0.8 million was recorded in general and administrative for the three months ended and \$2.3 million and \$1.3 million for the nine months ended September 30, 2023 and 2022, respectively, within the condensed consolidated statements of operations and comprehensive loss. Amortization expense for developed technology was \$1.5 million and \$1.5 million for the three months ended September 30, 2023 and 2022, respectively, and \$4.5 million and \$2.5 million for the nine months ended September 30, 2023 and 2022, respectively, and in each case, was recorded in general and administrative expenses within the condensed consolidated statements of operations and comprehensive loss. Amortization expense for customer relationships of \$1.3 million and \$1.2 million for the three months ended and \$3.7 million and \$2.0 million for the nine months ended September 30, 2023 and 2022, respectively was recorded in selling and marketing within the condensed consolidated statements of operations and comprehensive loss.

10. Litigation and Contingencies

The Company is a party to various actions and claims arising in the normal course of business. The Company does not believe that the outcome of these matters will have a material effect on the Company’s condensed consolidated financial position, results of operations or cash flows. However, no assurance can be given that the final outcome of such proceedings will not materially impact the Company’s condensed consolidated financial condition or results of operations.

Except as described below, the Company was not a party to any material legal proceedings at September 30, 2023, nor is it a party to any material legal proceedings at the date of issuance of these condensed consolidated financial statements; however, we may become involved in various claims and legal actions arising in the ordinary course of business.

On September 7, 2022, a shareholder class action lawsuit was filed in the United States District Court for the District of Connecticut against the Company and certain of the Company’s current and former officers. Following the appointment of a lead plaintiff, an amended complaint was filed on January 30, 2023. As amended, the complaint purports to bring suit on behalf of stockholders who purchased the Company’s publicly traded securities between March 14, 2022 and August 15, 2022. The complaint purports to allege that defendants made false and misleading statements about the Company’s business, operations and prospects in violation of Sections 10(b) and 20(a) of the Exchange Act, and seeks unspecified compensatory damages, fees and costs. The defendants moved to dismiss the amended complaint on August 21, 2023. That motion is pending. The Company believes the allegations and claims made in the complaint are without merit.

On February 7, 2023, a stockholder commenced a lawsuit in the Delaware Court of Chancery. The suit is brought as a class action on behalf of stockholders of CMLS who did not redeem their shares in connection with the Business Combination. The suit names as defendants all directors of CMLS at the time of the transaction, including directors who continue to serve on the Company's board of directors, as well as CMLS Holdings LLC (the "Former Sponsor"). The Company is not named as a defendant. The complaint alleges that the July 2, 2021 proxy statement mailed to CMLS stockholders in connection with the transaction contained false and misleading statements, and purports to assert a claim of breach of fiduciary duty against all individual defendants, and a similar claim against the Former Sponsor and certain individuals for breach of fiduciary duty as control persons. The suit seeks to recover unspecified damages on behalf of the alleged class, among other relief. After defendants moved to dismiss the case, plaintiff filed an amended complaint on July 6, 2023, revising certain allegations and adding third parties as defendants. The defendants answered the amended complaint on September 15, 2023. The Company believes the allegations and claims made in the amended complaint are without merit. The Company is subject to certain claims for advancement and indemnification by the individual defendants in this proceeding.

11. Stock-Based Compensation

Stock Incentive Plans

The Company's 2017 Equity Incentive Plan (the "2017 Plan"), as amended in February 2018, allowed the grant of options, restricted stock awards, stock appreciation rights and restricted stock units. No options granted under the 2017 Plan are exercisable after 10 years from the date of grant, and option awards generally vest over a four-year period.

The 2017 Plan was terminated in connection with the adoption of the Company's 2021 Equity Incentive Plan (the "2021 Plan"). Any awards granted under the 2017 Plan that remained outstanding at the closing date of the Business Combination and were converted into awards with respect to the Company's Class A common stock in connection with the consummation of the Business Combination continue to be subject to the terms of the 2017 Plan and applicable award agreements, except for a modification of the repurchase provision, which is discussed further below.

On July 22, 2021, in connection with the Business Combination, the 2021 Plan became effective and 991,970 authorized shares of Class A common stock were reserved for issuance thereunder. The 2021 Plan is administered by the Compensation Committee of the Company's Board of Directors, including determination of the vesting, exercisability and payment of the awards to be granted under the 2021 Plan. No awards granted under the 2021 Plan are exercisable after 10 years from the date of grant, and the awards granted under the 2021 Plan generally vest over a four-year period on a graded vesting basis.

On April 14, 2023, the stockholders of the Company approved an amendment and restatement to the 2021 Plan to increase the aggregate number of shares of the Company's Class A common stock authorized for issuance under the 2021 Plan by 787,879 shares and implement certain other clarifying changes.

On July 21, 2023, the Company adopted the 2023 Equity Inducement Plan (the "Equity Inducement Plan") and, subject to the adjustment provisions of the Equity Inducement Plan, reserved 500,000 shares of the Company's Class A common stock for issuance pursuant to equity awards to be granted under the Equity Inducement Plan. In accordance with Rule 5635(c)(4) of the Nasdaq Listing Rules, the only persons eligible to receive grants of equity awards under the Equity Inducement Plan are individuals who were not previously an employee or director of the Company, or following a bona fide period of non-employment, as an inducement material to such persons entering into employment with the Company.

Employee Stock Purchase Plan

The 2021 Employee Stock Purchase Plan (the "2021 ESPP") became effective in connection with the Business Combination. The 2021 ESPP authorizes the issuance of shares of Class A common stock pursuant to purchase rights granted to employees. On each January 1 of each of 2022 through 2031, the aggregate number of shares of Class A common stock reserved for issuance under the 2021 Plan may be increased automatically by the number of shares equal to one percent (1%) of the total number of shares of all classes of common stock issued and outstanding immediately preceding December 31. The Company did not make any grants of purchase rights under the 2021 ESPP during the three and nine months ended September 30, 2023 and September 30, 2022. A total of 336,816 shares of Class A common stock have been reserved for future issuance under the 2021 ESPP.

Stock Option Activity

Under the 2017 Plan, the Company had a call option to repurchase awards for cash from the plan participants upon termination of the participant's employment or consulting agreement (the "2017 Plan Call Option"). The options granted

under the 2017 Plan were accounted for as liability awards due to the 2017 Plan Call Option. The Company had a history of repurchase practice and the intention to repurchase the vested options. Therefore, the fair value of the liability awards was remeasured at each reporting period until the stockholder bears the risks and rewards of equity ownership for a reasonable period of time, which the Company concludes is at least six months.

Upon consummation of the Business Combination, the Company’s Board of Directors waived the Company’s right under the 2017 Plan Call Option to repurchase awards for cash from the plan participants upon termination of the participant’s employment or consulting agreement. As such, the Company modified the liability awards to equity awards and reclassified the modification date fair value of the awards to stockholders’ equity in the condensed consolidated financial statements at July 22, 2021.

All stock options granted under the 2021 Plan are accounted for as equity awards.

The following summarizes the stock option activity during the nine months ended September 30, 2023:

	Stock Options Outstanding	Weighted Average Exercise Price
Balance at December 31, 2022	798,873	\$ 49.83
Options granted	44,080	\$ 7.89
Options exercised	(50,444)	\$ 5.05
Options forfeited or canceled	(169,279)	\$ 78.82
Balance at September 30, 2023	<u>623,230</u>	<u>\$ 11.00</u>
Options exercisable at September 30, 2023	<u>769,312</u>	<u>\$ 18.03</u>

At September 30, 2023, unrecognized stock-based compensation cost related to the unvested portion of the Company’s stock options was \$4.4 million, which is expected to be recognized on a graded-vesting basis over a weighted-average period of 1.5 years.

The fair value of the stock option awards for the nine months ended September 30, 2023 were estimated using the Black-Scholes option pricing model with the following assumptions:

	Nine months ended September 30, 2023
Expected volatility	105.00%
Expected term (in years)	5.5
Risk-free interest rate	4.03%
Dividend yield	—
Fair value of Class A common stock	\$6.35

The Company estimated a volatility factor for the Company’s options based on analysis of historical share prices of a peer group of public companies, the historical share prices of the Company, and the implied volatility of the Company’s call options. The Company estimated the expected term of options granted using the “simplified method,” which is the mid-point between the vesting date and the ending date of the contractual term. The Company did not rely on the historical holding periods of the Company’s options due to the limited availability of exercise data. The Company used a risk-free interest rate based on the U.S. Treasury yield curve in effect for bonds with maturities consistent with the expected term of the option.

Restricted Stock Units (RSUs)

The Company has issued time-based RSUs to employees under the 2021 Plan and the Equity Inducement Plan. The RSUs automatically convert to shares of Class A common stock on a one-for-one basis as the awards vest. The Company measures the value of RSUs at fair value based on the closing price of the underlying Class A common stock on the grant date. The RSUs granted generally vest over a four year vesting period from the grant date, however, certain grants include

vesting term that begins vesting 12 months from the grant date. The following table summarizes the activity related to the Company's time-based RSUs:

	Restricted Stock Units Outstanding	Weighted Average Grant Date Fair Value Per Un
Balance at December 31, 2022	855,061	\$ 77.8
Restricted Stock Units granted	1,601,270	\$ 24.3
Restricted Stock Units vested	(328,242)	\$ 63.2
Restricted Stock Units forfeited	(430,308)	\$ 70.3
Balance at September 30, 2023	<u>1,697,781</u>	<u>\$ 18.1</u>

Additionally, the Company issued 18,794 RSUs subject to both service and performance based vesting conditions to the Executive Chairman of the Company. The grant date was established during the first quarter period and vesting of the RSUs will be based on the achievement of performance goals established for calendar year 2023.

Earn-out RSUs

The grant date fair value determined for Triggering Event I, II and III was \$60.06, \$45.87 and \$31.02 per unit, respectively. Any re-allocated RSUs due to the Legacy Sema4 option holders' forfeiture activities during the nine month period ended September 30, 2023 were accounted for as new grants and the fair value determined for Triggering Event I, II and III was \$0.00, \$0.00 and \$0.00 per unit, respectively. Based on the grant date fair value, the Company recorded a reversal of stock-based compensation of \$0.8 million for the nine months ended September 30, 2023 due to the Legacy Sema4 option holders' forfeiture activities. The Company recognized the stock-compensation cost over the longer of the derived service period or service period. The earn-out RSUs expired in July 2023.

Stock Appreciation Rights (SAR) Activity

The Company historically granted SARs to one employee and one consultant with an exercise condition of a liquidation event. As a result of the Business Combination, settlement of the outstanding vested SARs in exchange for a cash payment and to cancel the outstanding unvested SARs was agreed upon and an expense of \$3.8 million related to the vested SAR was recognized by the Company. There were no outstanding SARs at September 30, 2023.

The Company recorded a reversal of stock-based compensation of \$4.7 million and \$17.3 million during the three months ended September 30, 2023 and 2022, respectively, and \$20.3 million and \$27.0 million during the nine months ended September 30, 2023 and 2022, respectively, due to forfeiture activities upon employee terminations. Stock-based compensation expense for all awards granted and outstanding is included within the condensed consolidated statements of operations and comprehensive loss as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Cost of services	\$ 75	\$ 1,477	\$ (1,340)	\$ 4,668
Research and development	(533)	(8,164)	(265)	2,692
Selling and marketing	(115)	2,050	(195)	5,714
General and administrative	1,004	5,910	2,386	28,479
Total stock-based compensation expense	<u>\$ 431</u>	<u>\$ 1,273</u>	<u>\$ 586</u>	<u>\$ 41,553</u>

12. Income Taxes

Income tax benefit for the nine months ended September 30, 2023 and 2022 was \$0.5 million and \$49.1 million, respectively. Income taxes for these periods are recorded at the Company's estimated annual effective income tax rate, subject to adjustments for discrete events should they occur. The Company's estimated annual effective tax rate was 0.35% and 0.05% for the nine months ended September 30, 2023 and 2022, respectively.

The difference between the Company's effective tax rates in 2023 and 2022 compared to the U.S. statutory tax rate of 21% is primarily due to changes in valuation allowances associated with the Company's assessment of the likelihood of the recoverability of deferred tax assets. The Company currently has valuation allowances against a significant portion of its deferred tax assets primarily related to its net operating loss carryforwards and tax credit carryforwards.

13. Net loss per Share

Basic and diluted loss per share attributable to common stockholders was calculated as follows (amounts in thousands, except for share and per share amounts):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Numerator:				
Net loss attributable to common stockholders	\$ (42,286)	\$ (77,581)	\$ (149,994)	\$ (240,219)
Denominator:				
Denominator for basic and diluted earnings per share-weighted-average common shares	25,788,747	11,538,308	23,777,327	9,741,250
Basic and diluted loss income per share	<u>\$ (1.64)</u>	<u>\$ (6.72)</u>	<u>\$ (6.31)</u>	<u>\$ (24.66)</u>

As a result of the Reverse Stock Split, the Company has retroactively adjusted the weighted-average number of shares of common stock outstanding prior to the Reverse Stock Split by a ratio of 1-for-33 to determine the number of shares of common stock into which they converted.

The following tables summarize the outstanding shares of potentially dilutive securities that were excluded from the computation of diluted net loss per share attributable to common stockholders for the period presented because including them would have been anti-dilutive:

	September 30,	
	2023	2022
Outstanding options and RSUs to purchase Class A common stock	2,321,011	1,699,949
Outstanding warrants	666,515	666,515
Outstanding earn-out shares	—	532,367
Outstanding earn-out RSUs	—	44,044
Total	<u>2,987,526</u>	<u>2,942,875</u>

14. Restructuring Costs

The table below provides certain information concerning restructuring activity during the nine months ended September 30, 2023:

	Reserve Balance at December 31, 2022	Charged to Costs and Expenses	Payments and Other	Reserve Balance at September 30, 2023
Severance	\$ 4,770	\$ 4,530	\$ (7,810)	\$ 1,490
Others	253	18	(271)	-
Total	<u>\$ 5,023</u>	<u>\$ 4,548</u>	<u>\$ (8,081)</u>	<u>\$ 1,490</u>

During the fourth quarter of 2022, the Company announced its strategic realignment resulting in the exit of its reproductive and women's health testing business, which included carrier screening, noninvasive prenatal, and other ancillary reproductive testing offerings. The Company ceased accepting samples for these tests on December 14, 2022 and notified its customers impacted by the decision immediately. As a result, the Company eliminated approximately 500 positions, and ceased operations at its Stamford, CT laboratory. When combined with the Company's prior reductions in workforce during 2022, the exit resulted in the elimination of approximately 32.5% of the Company's workforce which existed at the time of the announcement. During 2023, the Company has continued to realign the organization and reduced its overall workforce. The Company expects that all remaining cash severance payments will be complete in less than one year.

The restructuring costs for the three and nine months ended September 30, 2023 and 2022 were as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Severance	\$ 2,191	\$ 7,297	\$ 4,530	\$ 12,53
Others	—	1,695	18	6,02
Total	\$ 2,191	\$ 8,992	\$ 4,548	\$ 18,55

Cost Saving Initiatives

Subsequent to September 30, 2023, on October 30, 2023, the Company announced a continued strategic realignment of its organization to key priorities which includes the elimination of approximately 50 positions impacted on August 23, 2023 and approximately 35 positions impacted on October 30, 2023. Together these actions reduced the size of the Company's workforce by 10% from the total number that existed at the time of the August reduction in force. In total, the Company announced cost saving initiatives, including but not limited to these reductions in force, that are expected to amount to approximately \$40 million in annual cost reduction.

15. Supplemental Financial Information

Cash, cash equivalents and restricted cash consisted of the following (in thousands):

	September 30, 2023	December 31, 2022
Cash and cash equivalents	\$ 87,387	\$ 123,933
Restricted cash	900	14,370
Total	\$ 88,287	\$ 138,303

Restricted cash at December 31, 2022 included \$12.1 million held in escrow in connection with the closing of the Acquisition which was released upon expiration of the one year escrow period in May 2023. Restricted cash at September 30, 2023 consisted of money market deposit accounts that secure an irrevocable standby letter of credit that serves as collateral for security deposit operating leases.

Restricted cash at September 30, 2022 included \$0.9 million money market deposit accounts that secure an irrevocable standby letter of credit that serves as collateral for security deposit operating leases. Restricted cash as of September 30, 2022 also included \$13.5 million escrow fund related to the closing of the Acquisition of GeneDx as mentioned above and was recorded in non-current assets on the condensed consolidated balance sheets.

Prepaid expenses and other current assets consisted of the following (in thousands):

	September 30, 2023	December 31, 2022
Prepaid expenses	\$ 10,737	\$ 11,822
Other current assets	5,024	6,390
Restricted cash	—	13,470
Total	\$ 15,761	\$ 31,682

Other assets consisted of the following (in thousands):

	September 30, 2023	December 31, 2022
Other assets	\$ 5,159	\$ 6,485
Long-term restricted cash	900	900
Total	\$ 6,059	\$ 7,385

Accounts payable and accrued expenses consisted of the following (in thousands):

	September 30, 2023	December 31, 2022
Accounts payable	\$ 15,373	\$ 46,017
Accrued purchases	13,322	20,314
Third party payor reserve	10,153	17,001
Other	25	1,546
Total	\$ 38,873	\$ 84,878

Other current liabilities consisted of the following (in thousands):

	September 30, 2023	December 31, 2022
Accrued bonus	\$ 6,264	\$ 8,429
Accrued payroll	3,063	3,905
Accrued benefits	6,033	1,529
Accrued commissions	456	1,656
Accrued severance	1,490	4,770
Current portion of long-term debt	198	4,750
Indemnification liabilities	—	13,470
Current portion of the contingent consideration liabilities	—	6,019
Other	4,342	5,177
Total	\$ 21,846	\$ 49,705

Other liabilities consisted of the following (in thousands):

	September 30, 2023	December 31, 2022
Warrant liability	\$ 660	\$ 418
Earn-out contingent liability	—	1,600
Third party payor reserve	22,000	22,000
Total	\$ 22,660	\$ 24,018

16. Segment Reporting

The Company's business is aligned with how the chief operating decision maker ("CODM") reviews performance and makes decisions in managing the Company. At September 30, 2023, the Company has identified two reportable segments: (i) GeneDx inclusive of Legacy GeneDx and Legacy Sema4 data revenues and associated costs and (ii) Legacy Sema4 diagnostics. The GeneDx segment primarily provides pediatric and rare disease diagnostics with a focus on whole exome and genome sequencing and, to a lesser extent, data and information services. The Legacy Sema4 diagnostics segment provided reproductive and women's health and somatic oncology diagnostic testing and screening products and has been completely shut down. Segment information is consistent with how management reviews the business, makes investing and resource allocation decisions and assesses operating performance. The CODM evaluates segment performance based on revenue and adjusted gross margin.

<i>(in thousands)</i>	Three months ended September 30,					
	2023			2022		
	GeneDx	Legacy Sema4	Total	GeneDx	Legacy Sema4	Total
Revenue	\$ 50,350	\$ 2,953	\$ 53,303	\$ 45,581	\$ 37,653	\$ 83,234
Adjusted cost of services	26,079	225	26,304	24,905	36,603	61,508
Adjusted gross profit ⁽¹⁾	24,271	2,728	26,999	20,676	1,050	21,726
Reconciliations:						
Depreciation and amortization	1,613	—	1,613	947	4,256	5,203
Stock-based compensation	75	—	75	174	1,303	1,477
Restructuring charges	52	—	52	—	1,497	1,497
Gross profit (loss)	\$ 22,531	\$ 2,728	\$ 25,259	\$ 19,555	\$ (6,006)	\$ 13,549

<i>(in thousands)</i>	Nine months ended September 30,					
	2023			2022		
	GeneDx	Legacy Sema4	Total	GeneDx	Legacy Sema4	Total
Revenue	\$ 136,269	\$ 8,879	\$ 145,148	\$ 71,716	\$ 101,628	\$ 173,344
Adjusted cost of services	81,357	2,305	83,662	40,522	125,435	165,957
Adjusted gross profit (loss) ⁽¹⁾	54,912	6,574	61,486	31,194	(23,807)	7,387
Reconciliations:						
Depreciation and amortization	3,322	113	3,435	1,603	9,732	11,335
Stock-based compensation	631	(1,971)	(1,340)	327	4,341	4,668
Restructuring charges	108	31	139	—	1,808	1,808
Gross profit (loss)	\$ 50,851	\$ 8,401	\$ 59,252	\$ 29,264	\$ (39,688)	\$ (10,424)

(1) Adjusted Cost of Services and Adjusted Gross Profit exclude depreciation and amortization expense, stock-based compensation expense and restructuring costs.

Prior period comparable results have been reclassified to conform with the Company's current two reportable segment presentation.

Management manages assets on a total company basis, not by reporting segment. The CODM does not regularly review any asset information by reporting segment and, accordingly, the Company does not report asset information by reporting segment.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations together with our unaudited condensed consolidated financial statements and related notes appearing elsewhere in this Quarterly Report and our audited financial statements for the year ended December 31, 2022 and the related notes in our Annual Report on Form 10-K for the year ended December 31, 2022. This discussion contains forward-looking statements and involves numerous risks and uncertainties. Actual results may differ materially from the results described in or implied by the forward-looking statements. You should carefully read the section entitled “Risk Factors” to gain an understanding of the important factors that could cause actual results to differ materially from these forward-looking statements.

Overview

We are a leading genomics company—one that sits at the intersection of diagnostics and data science, pairing decades of genomic expertise with an ability to interpret clinical data at scale. We are focused on delivering personalized and actionable health insights to inform diagnosis, direct treatment and improve drug discovery. We believe we are well-positioned to accelerate the use of genomics and leverage large-scale clinical data to enable precision medicine as the standard of care. Our initial focus is in pediatric and rare diseases, two areas in which we believe we have competitive advantage and can deliver on our vision today.

Corporate History Overview

Mount Sinai Genomics, Inc. d/b/a as Sema4 (“Legacy Sema4”) was established out of the Mount Sinai Health System and commenced operations as a commercial entity on June 1, 2017. Legacy Sema4 derived the majority of its revenue from diagnostic testing services, which primarily related to reproductive and women’s health and somatic tumor testing. In addition, between May 2020 through March 31, 2022, Legacy Sema4 provided COVID-19 diagnostic testing services.

GeneDx, LLC (formerly, GeneDx, Inc.) (“Legacy GeneDx”), which derives its revenue primarily from diagnostic testing services, including revenue related to exome sequencing and whole genome sequencing, was acquired by the Company on April 29, 2022 (the “Acquisition”). The diagnostic testing services businesses of Legacy Sema4 were discontinued as of the end of the first quarter of 2023, and our continuing operations now include the combination of the Legacy GeneDx diagnostic testing services business with the data and information business of Legacy Sema4.

Additional information on Legacy GeneDx and Legacy Sema4 can be found in the audited financial statements in Note 1, “*Organization and Description of Business*” included within our Annual Report on Form 10-K for the year ended December 31, 2022, and our condensed consolidated financial statements in Note 1, “*Organization and Description of Business*” included within this Quarterly Report.

Factors Affecting Our Performance

We believe several important factors have impacted, and will continue to impact, our performance and results of operations. While each of these areas presents significant opportunities for us, they also pose significant risks and challenges that we must address. See the section titled “*Item 1A. Risk Factors*” in this Quarterly Report and in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2023, which is incorporated by reference in this Quarterly Report, for further information.

Number of resulted tests

A test is resulted once the appropriate workflow is completed and details are provided to the ordered patients or healthcare professional for reviews, which corresponds to the timing of our revenue recognition. We believe the number of resulted tests in any period is important and useful to our investors because it directly correlates with long-term patient relationships and the size of our genomic database.

Success obtaining and maintaining reimbursement

Our ability to increase the number of billable tests and our revenue therefrom will depend on our success in achieving reimbursement for our tests from third-party payors. Reimbursement by a payor may depend on several factors, including a payor’s determination that a test is appropriate, medically necessary, cost-effective, and has received prior authorization. Since each payor makes its own decision as to whether to establish a policy or enter into a contract to provide coverage for our tests, as well as the amount it will reimburse us for a test, seeking these approvals is a time-consuming and costly process.

In cases where we or our partners have established reimbursement rates with third-party payors, we face additional challenges in complying with their procedural requirements for reimbursement. These requirements often vary from payor to payor and are reassessed by third-party payors regularly. As a result, in the past we have needed additional time and resources to comply with the requirements.

Third-party payors may decide to deny payment or seek to recoup payments for tests performed by us that they contend were improperly billed, not medically necessary or against their coverage determinations, or for which they believe they have otherwise overpaid. As a result, we may be required to refund payments already received, and our revenues may be subject to retroactive adjustment as a result of these factors among others.

We expect to continue to focus our resources on increasing the adoption of, and expanding coverage and reimbursement for, our current and any future tests we may develop or acquire. If we fail to expand and maintain broad adoption of, and coverage and reimbursement for, our tests, our ability to generate revenue and our future business prospects may be adversely affected.

Ability to lower the costs associated with performing our tests

Reducing the costs associated with performing our diagnostic tests is both our focus and a strategic objective. We source, and will continue to source, components of our diagnostic testing workflows from third parties. We also rely upon third-party service providers for data storage and workflow management.

Increasing adoption of our services by existing and new customers

Our performance depends on our ability to retain and broaden the adoption of our services with existing customers as well as our ability to attract new customers. Our success in retaining and gaining new customers is dependent on the market's confidence in our services and the willingness of customers to continue to seek more comprehensive and integrated genomic and clinical data insights.

Investment in platform innovation to support commercial growth

We are seeking to leverage and deploy our platforms to develop a pipeline of future disease-specific research and diagnostic and therapeutic products and services. We have limited experience in the development or commercialization of clinical or research products in connection with our database and platform.

We operate in a rapidly evolving and highly competitive industry. Our business faces changing technologies, shifting provider and patient needs, and frequent introductions of rival products and services. To compete successfully, we must accurately anticipate technology developments and deliver innovative, relevant, and useful products, services, and technologies on time. As our business evolves, the competitive pressure to innovate will encompass a wider range of products and services. We must continue to invest significant resources in research and development, including investments through acquisitions and partnerships. These investments are critical to the enhancement of our current diagnostics and health information and data science technologies from which existing and new service offerings are derived.

We expect to incur significant expenses to advance these development efforts, but they may not be successful. New potential services may fail at any stage of development and, if we determine that any of our current or future services are unlikely to succeed, we may abandon them without any return on our investment. If we are unsuccessful in developing additional services, our growth potential may be impaired.

COVID-19 Impact

During 2023, our test volumes improved to what would, at this time, be considered normalized market conditions. A COVID-19 resurgence in the United States could however have a material impact on our results of operations, cash flows, and financial condition.

In March 2020, the Coronavirus Aid, Relief and Economic Security Act ("CARES Act"), was signed into law. The CARES Act was a stimulus bill that, among other things, provided assistance to qualifying businesses and individuals and included funding for the healthcare system. We received \$5.4 million in 2020 as part of the stimulus, comprised of \$2.6 million received under the Provider Relief Fund (the "PRF"), and \$2.8 million received under the Employee Retention Credit (the "ERC"). In 2021, we received an additional \$5.6 million under the PRF.

Funds provided under the PRF to healthcare providers are not loans and will not be required to be repaid; however, as a condition to receiving these payments, providers must agree to certain terms and conditions and submit sufficient documentation demonstrating that the funds are being used for healthcare-related expenses or lost revenue attributable to the COVID-19 pandemic. We have concluded it is probable that all terms and conditions associated with the funds received under the PRF distribution have been met. As a result, we recorded the funds received under the PRF in other expense (income), net in the statements of operations and comprehensive loss during the periods in which we received the funds.

Funds provided under the ERC are refundable tax credits for 50% of qualified wages paid to employees during the pandemic. A company is eligible for the ERC (1) its operations have been fully or partially suspended because of COVID-19 or (2) its gross receipts in a calendar quarter in 2020 declined by more than 50% from the same period in 2019. At the time of applying for the ERC, we concluded that it was reasonably possible the eligibility requirements would be met; however, due to a change in circumstances, we have re-evaluated our position and concluded that the funds received under the ERC needed to be repaid back. Therefore, in July 2023, we remitted \$2.7 million of payment and reduced a liability initially recorded in other current liabilities on the condensed consolidated balance sheets.

Key Performance Indicators

We use the following key financial and operating metrics to evaluate our business and operations, measure our performance, identify trends affecting our business, project our future performance, and make strategic decisions. These key financial and operating metrics should be read in conjunction with the following discussion of our results of operations and financial condition together with our condensed consolidated financial statements and the related notes and other financial information included elsewhere in this report.

The principal focus of our commercial operations is to offer our diagnostic tests through both our direct sales force and laboratory distribution partners. Test volume correlates with genomic database size and long-term patient relationships. Thus, test volumes drive database diversity and enable potential identification of variants of unknown significance and population-specific insights. The number of tests resulted and the mix of test results, with a focus on driving whole exome and whole genome sequencing, are key indicators that we use to assess the operational efficiency of our business. Once the appropriate workflow is completed, the test is resulted and details are provided to ordered patients or healthcare professionals for reviews.

During the nine months ended September 30, 2023, we resulted 165,339 tests, of which all were processed by the Legacy GeneDx laboratory compared to the period ended September 30, 2022, in which we resulted approximately 276,171 tests in Legacy Sema4 and Legacy GeneDx laboratories. The volume decrease from 2022 to 2023 can be primarily attributed to the Company's decision to terminate its Legacy Sema4 reproductive health and somatic oncology testing activities in 2022. This was partially compensated by the addition of volumes from Legacy GeneDx's laboratory subsequent to the Acquisition's closing, as elaborated below.

Key Components of Results of Operations

Revenue

Diagnostic Test Revenue

The majority of our revenue is derived from genetic and genomic diagnostic testing services for three groups of customers: healthcare professionals working with patients with third-party insurance coverage or without third-party insurance coverage, institutional clients such as hospitals, clinics, state governments and reference laboratories, and self-pay patients. The amount of revenue recognized for diagnostic testing services depends on a number of factors, such as contracted rates with our customers and third-party insurance providers, insurance reimbursement policies, payor mix, historical collection experience, price concessions and other business and economic conditions and trends. To date, the majority of our diagnostic test revenue has been earned from orders received for patients with third-party insurance coverage. The now discontinued Legacy Sema4 diagnostics business previously provided reproductive and women's health testing and screening, as well as somatic tumor testing. Our ability to increase our diagnostic test revenue will depend on our ability to increase our market penetration, obtain contracted reimbursement coverage from third-party payors, enter into contracts with institutions, and increase our reimbursement rate for tests performed.

Other Revenue

We also generate revenue from collaboration service agreements with biopharma companies and other third parties pursuant to which we provide health information and patient identification support services. Certain of these contracts

provide non-refundable payments, which we record as contract liabilities, and variable payments based upon the achievement of certain milestones during the contract term.

With respect to existing collaboration and service agreements, our revenue may fluctuate period to period due to the pattern in which we may deliver our services, our ability to achieve milestones, the timing of costs incurred, changes in estimates of total anticipated costs that we expect to incur during the contract period, and other events that may not be within our control. Our ability to increase our revenue will depend on our ability to enter into contracts with third-party partners.

Cost of Services

The cost of services reflect the aggregate costs incurred in performing services, which include expenses for reagents and laboratory supplies, personnel-related expenses (comprising salaries and benefits) and stock-based compensation for employees directly involved in revenue generating activities, shipping and handling fees, costs of third-party reference lab testing and phlebotomy services, if any, and allocated genetic counseling, facility and IT costs associated with delivery services. Allocated costs include depreciation of laboratory equipment, facility occupancy, and information technology costs. The cost of services are recorded as the services are performed.

We expect the cost of services to generally increase in line with the anticipated growth in diagnostic testing volume and services we provide under our collaboration service agreements. However, we expect the cost per test to decrease over the long term due to the efficiencies we may gain from improved utilization of our laboratory capacity, automation, and other value engineering initiatives. These expected reductions may be offset by new tests which often have a higher cost per test during the introductory phases before we can gain efficiencies. The cost per test may fluctuate from period to period.

Research and Development Expenses

Research and development expenses represent costs incurred to develop our technology and future test offerings. These costs are principally associated with our efforts to develop the software we use to analyze data and process customer orders. These costs primarily consist of personnel-related expenses (comprising salaries and benefits), stock-based compensation for employees performing research and development, innovation and product development activities, costs of reagents and laboratory supplies, costs of consultants and third-party services, equipment and related depreciation expenses, non-capitalizable software development costs, research funding to our research partners as part of research and development agreements and allocated facility and information technology costs associated with genomics medical research. Research and development costs are generally expensed as incurred and certain non-refundable advanced payments provided to our research partners are expensed as the related activities are performed.

We generally expect our research and development expenses to continue to increase as we innovate and expand the application of our platforms. However, we expect research and development expenses to decrease as a percentage of revenue in the long term, although the percentage may fluctuate from period to period due to the timing and extent of our development and commercialization efforts and fluctuations in our compensation-related charges.

Selling and Marketing Expenses

Selling and marketing expenses primarily consist of personnel-related expenses (comprising salaries and benefits) and stock-based compensation for employees performing commercial sales, account management, marketing, and allocation of genetic counseling services for GeneDx. Allocated genetic counseling service cost for Legacy Sema4 is recorded as general and administrative expenses as the activities are not expected to support selling and marketing expenses of Legacy Sema4. Selling and marketing costs are expensed as incurred.

We generally expect our selling and marketing expenses will continue to increase in absolute dollars as we expand our commercial sales and marketing and counseling teams and increase marketing activities. However, we expect selling and marketing expenses to decrease as a percentage of revenue in the long term, subject to fluctuations from period to period due to the timing and magnitude of these expenses.

General and Administrative Expenses

General and administrative expenses primarily consist of personnel-related expenses (comprising salaries and benefits) and stock-based compensation for employees in executive leadership, legal, finance and accounting, human resources, information technology, and other administrative functions. In addition, these expenses include office occupancy and information technology costs. General and administrative costs are expensed as incurred.

We generally expect our general and administrative expenses to continue to increase in absolute dollars as we increase headcount and incur costs associated with operating as a public company, including expenses related to legal, accounting, and regulatory matters, maintaining compliance with requirements of Nasdaq and of the SEC, director and officer insurance premiums. We expect these expenses to decrease as a percentage of revenue in the long term as revenue increases, although the percentage may fluctuate from period to period due to fluctuations in our compensation-related charges.

Comparison of the three months ended September 30, 2023 and 2022

The following table sets forth our results of operations for the periods presented:

(in thousands)	Three months ended September 30,			
	2023	2022	\$ Change	% Change
Revenue				
Diagnostic test revenue	\$ 51,955	\$ 81,490	\$ (29,535)	(36)%
Other revenue	1,348	1,744	(396)	(23)%
Total revenue	53,303	83,234	(29,931)	(36)%
Cost of services	28,044	69,685	(41,641)	(60)%
Gross profit	25,259	13,549	11,710	86 %
Research and development	14,288	13,354	934	7 %
Selling and marketing	16,763	34,383	(17,620)	(51)%
General and administrative	26,099	54,931	(28,832)	(52)%
Impairment loss	8,282	—	8,282	NM
Other operating expenses, net	2,794	1,697	1,097	65 %
Loss from operations	(42,967)	(90,816)	47,849	(53)%
Non-operating income (expenses), net				
Change in fair market value of warrant and earn-out contingent liabilities	590	12,978	(12,388)	(95)%
Interest income, net	1,053	190	863	NM
Other (expense) income, net	(1,134)	2	(1,136)	NM
Total non-operating income, net	509	13,170	(12,661)	(96)%
Loss before income taxes	(42,458)	(77,646)	35,188	(45)%
Income tax benefit	172	65	107	165 %
Net loss and comprehensive loss	\$ (42,286)	\$ (77,581)	\$ 35,295	(45)%

NM - Not Meaningful

Revenue

Total revenue decreased by \$29.9 million, or 36%, to \$53.3 million for the three months ended September 30, 2023, from \$83.2 million for the three months ended September 30, 2022.

Diagnostic test revenue decreased by \$29.5 million, or 36%, to \$52.0 million for the three months ended September 30, 2023, from \$81.5 million for the three months ended September 30, 2022. The decrease primarily reflected \$36.1 million in lower revenues from the now discontinued Legacy Sema4 business. This decrease was partially offset by an increase from Legacy GeneDx diagnostic testing revenues of \$3.6 million driven by a \$10.0 million, or 42%, increase in whole exome and genome sequencing revenues resulting from a 71% increase in test volumes partially offset by lower average reimbursement rates from exome tests and declines in other non-exome test revenues.

Other revenue decreased by \$0.4 million, or 23%, to \$1.3 million for the three months ended September 30, 2023, from \$1.7 million for the three months ended September 30, 2022 due the lower revenues from the now discontinued Legacy Sema4 business.

Gross Profit

Gross profit increased by \$11.7 million or 86%, to \$25.3 million for the three months ended September 30, 2023, from \$13.5 million for the three months ended September 30, 2022. The increase was driven by a combination of lower cost of services from the now discontinued Legacy Sema4 business and improved margins from Legacy GeneDx. The gross profit performance from Legacy GeneDx reflected favorable volume mix shift to higher margin whole exome and genome tests, partially offset by lower average cost per test associated with these tests.

Research and Development

Research and development expense increased by \$0.9 million, or 7%, to \$14.3 million for the three months ended September 30, 2023, from \$13.4 million for the three months ended September 30, 2022. The increase was primarily attributable to costs associated with a Guardian newborn screening study which commenced in the fourth quarter of 2022. In addition, the prior period included a \$7.6 million reversal of stock compensation expense resulting from forfeitures of unvested equity awards by employees terminated from the now discontinued Legacy Sema4 business.

Selling and Marketing

Selling and marketing expense decreased by \$17.6 million, or 51%, to \$16.8 million for the three months ended September 30, 2023, from \$34.4 million for the three months ended September 30, 2022. The decrease was primarily attributable to lower costs from the now discontinued Legacy Sema4 business, partially offset by an increase in Legacy GeneDx costs which were in line with the increase in revenue for the business.

General and Administrative

General and administrative expense decreased by \$28.8 million, or 52%, to \$26.1 million for the three months ended September 30, 2023, from \$54.9 million for the three months ended September 30, 2022. The decrease was primarily attributable to lower current period costs from the now discontinued Legacy Sema4 business and a \$4.9 million reversal of stock compensation expense in the current period resulting from forfeitures of unvested equity awards by employees terminated in connection with recent headcount reduction actions. The decrease was partially offset by \$3.3 million of accelerated depreciation recorded in the current period to write down the remaining assets at the two closed Legacy Sema4 labs.

Impairment Loss

The non-cash charge of \$8.3 million reflected the impairment of certain capital and right-of-use asset leases. See Note 6, “*Property and Equipment, net*” to our unaudited condensed consolidated financial statements for further information.

Other Operating Expenses, Net

Other operating expenses, net were \$2.8 million for the three months ended September 30, 2023 as compared with \$1.7 million for the three months ended September 30, 2022. The increase reflected a non-cash charge of \$1.0 million in the current period to reserve for obsolete Legacy Sema4 inventory.

Non-Operating Income, Net

Non-operating income, net decreased by \$12.7 million, due to the significant decline in fair value of our warrant and earn-out contingent liabilities taken in the prior period and \$1.0 million contract termination costs in the current period associated with the now discontinued Legacy Sema4 business, partially offset by interest income in the current period due to higher interest rates associated with money market funds established with proceeds from our public offering of Class A common stock in the first quarter of 2023.

See Note 2, “*Summary of Significant Accounting Policies*” to our condensed consolidated financial statements for further information on the changes in fair value of our warrant and earn-out contingent liabilities.

Comparison of the nine months ended September 30, 2023 and 2022

The following table sets forth our results of operations for the periods presented:

(in thousands)	Nine months ended September 30,			
	2023	2022	\$ Change	% Change
Revenue				
Diagnostic test revenue	\$ 140,440	\$ 167,989	\$ (27,549)	(16)%
Other revenue	4,708	5,355	(647)	(12)%
Total revenue	145,148	173,344	(28,196)	(16)%
Cost of services	85,896	183,768	(97,872)	(53)%
Gross profit (loss)	59,252	(10,424)	69,676	NM
Research and development	46,018	61,837	(15,819)	(26)%
Selling and marketing	45,397	92,839	(47,442)	(51)%
General and administrative	107,129	172,958	(65,829)	(38)%
Impairment loss	10,402	—	10,402	NM
Other operating expenses, net	5,259	4,712	547	12 %
Loss from operations	(154,953)	(342,770)	187,817	(55)%
Non-operating income (expenses), net				
Change in fair market value of warrant and earn-out contingent liabilities	684	54,350	(53,666)	(99)%
Interest income (expense), net	2,092	(999)	3,091	NM
Other income, net	1,668	58	1,610	NM
Total non-operating income, net	4,444	53,409	(48,965)	(92)%
Loss before income taxes	(150,509)	(289,361)	138,852	(48)%
Income tax benefit	515	49,142	(48,627)	(99)%
Net loss and comprehensive loss	\$ (149,994)	\$ (240,219)	\$ 90,225	(38)%

NM - Not Meaningful

Revenue

Total revenue decreased by \$28.2 million, or 16%, to \$145.1 million for the nine months ended September 30, 2023, from \$173.3 million for the nine months ended September 30, 2022.

Diagnostic test revenue decreased by \$27.5 million, or 16%, to \$140.4 million for the nine months ended September 30, 2023, from \$168.0 million for the nine months ended September 30, 2022. The decrease was attributable in lower revenues from the now discontinued Legacy Sema4 business, partially offset by an increase in diagnostic test revenue increase from Legacy GeneDx driven by an increase in whole exome and genome sequencing revenues resulting from higher test volumes partially offset by lower average reimbursement rates from exome tests and declines in other non-exome test revenues. In addition, the prior period only reflected Legacy GeneDx's revenue following the closing of the Acquisition in April 2022.

Other revenue decreased by \$0.6 million, or 12%, to \$4.7 million for the nine months ended September 30, 2023, from \$5 million for the nine months ended September 30, 2022 due the lower revenues from the now discontinued Legacy Sema4 business.

Gross Profit

Gross profit increased by \$69.7 million for the nine months ended September 30, 2023, driven by a combination of lower cost of services from the now discontinued Legacy Sema4 business and improved margins from Legacy GeneDx. The gross profit performance from Legacy GeneDx reflected favorable volume mix shift to higher margin whole exome and genome tests, partially offset by lower average cost per test associated with these tests. In addition, the prior year only reflected GeneDx's results following the closing of the Acquisition in April 2022.

Research and Development

Research and development expense decreased by \$15.8 million, or 26%, to \$46.0 million for the nine months ended September 30, 2023, from \$61.8 million for the nine months ended September 30, 2022. The decrease was primarily attributable to lower current year costs from the now discontinued Legacy Sema4 business, which included a \$3.3 million reversal of stock compensation expense resulting from forfeitures of unvested equity awards by terminated employees. In addition, the prior year only reflected GeneDx's research and development costs following the closing of the Acquisition in April 2022. The decrease was partially offset by costs associated with a Guardian newborn screening study which commenced in the fourth quarter of 2022.

Selling and Marketing

Selling and marketing expense decreased by \$47.4 million, or 51%, to \$45.4 million for the nine months ended September 30, 2023, from \$92.8 million for the nine months ended September 30, 2022. The decrease was primarily attributable to lower current year costs of \$77.0 million from the now discontinued Legacy Sema4 business. In addition, the prior year only reflected Legacy GeneDx's selling and marketing costs following the closing of the Acquisition in April 2022. This decrease was partially offset by higher Legacy GeneDx costs, in line with the increase in post-Acquisition revenue.

General and Administrative

General and administrative expense decreased by \$65.8 million, or 38%, to \$107.1 million for the nine months ended September 30, 2023, from \$173.0 million for the nine months ended September 30, 2022. The decrease was primarily attributable to lower current year cost of \$85.0 from the now discontinued Legacy Sema4 business and a \$25.2 million reversal of stock compensation expense in the current period resulting from forfeitures of unvested equity awards by employees terminated in connection with fiscal 2023 headcount reduction actions. In addition, the prior year only reflected Legacy GeneDx's general and administrative costs following the closing of the Acquisition in April 2022. The decrease was partially offset by \$3.3 million of accelerated depreciation recorded in the current year to write-down the remaining assets at the two closed Legacy Sema4 labs.

Impairment Loss

The non-cash charge of \$10.4 million reflected the impairment of certain capital and right-of-use asset leases. See Note 6, "*Property and Equipment, net*" to our condensed consolidated financial statements for further information.

Other Operating Expenses, Net

Other operating expenses, net were \$5.3 million for the nine months ended September 30, 2023 and included related party expenses of \$4.6 million and non-cash charges of \$3.6 million to reserve for obsolete Legacy Sema4 inventory, partially offset by a current year gain of \$3.0 million recognized on the sale of certain assets sold as a result of an auction. Other operating expenses, net were \$4.7 million for the nine months ended September 30, 2022 primarily reflected related party expenses.

Non-Operating income, Net

Non-operating income, net, decreased by \$49.0 million, due to the significant decline in fair value of our warrant and earn-out contingent liabilities taken in the prior year and \$1.0 million of contract termination costs in the current year associated with the now discontinued Legacy Sema4 business. This decrease was partially offset by interest income in the current year due to higher interest rates associated with money market funds established with proceeds from our public offering of Class A common stock in the first quarter of 2023 and the principal loan forgiveness of \$2.8 million under the amendment to the DECD loan. See Note 8, "*Long-Term Debt*" to our condensed consolidated financial statements for further information.

Reconciliation of Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP, we believe the following non-GAAP measures are useful in evaluating our operating performance. We use the following non-GAAP financial information to evaluate our ongoing operations and for internal planning and forecasting purposes. We believe that non-GAAP financial information, when taken collectively, may be helpful to investors because it provides consistency and comparability with past financial performance. However, non-GAAP financial information is presented for supplemental informational purposes only and should not be considered in isolation or as a substitute for financial information presented in accordance with GAAP. In

addition, other companies, including companies in our industry, may calculate similarly-titled non-GAAP measures differently or may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP financial measures as tools for comparison. A reconciliation is provided below for each non-GAAP financial measure to the most directly comparable financial measure stated in accordance with GAAP. Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures, and not to rely on any single financial measure to evaluate our business.

Non-GAAP financial measures have limitations as analytical tools and you should not consider them in isolation, or as substitutes for analysis of our results as reported under GAAP. We may in the future incur expenses similar to the adjustments in the presentation of non-GAAP financial measures. Other limitations include that non-GAAP financial measures do not reflect:

- all expenditures or future requirements for capital expenditures or contractual commitments;
- changes in our working capital needs;
- the costs of replacing the assets being depreciated, which will often have to be replaced in the future;
- the non-cash component of employee compensation expense; and
- the impact of earnings or charges resulting from matters we consider not to be reflective, on a recurring basis, of our ongoing operations.

Adjusted Gross Profit and Adjusted Gross Margin

Adjusted Gross Profit is a non-GAAP financial measure that we define as revenue less cost of services, excluding depreciation and amortization expense, stock-based compensation expense and restructuring costs. We define Adjusted Gross Margin as our Adjusted Gross Profit divided by our revenue. We believe these non-GAAP financial measures are useful in evaluating our operating performance compared to that of other companies in our industry, as these metrics generally eliminate the effects of certain items that may vary from company to company for reasons unrelated to overall operating performance.

The following is a reconciliation of gross profit to our Adjusted Gross Profit and of our gross margin to Adjusted Gross Margin for the three and nine months ended September 30, 2023 and 2022:

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Revenue	\$ 53,303	\$ 83,234	\$ 145,148	\$ 173,344
Cost of services	28,044	69,685	85,896	183,768
Gross Profit	\$ 25,259	\$ 13,549	\$ 59,252	\$ (10,424)
<i>Gross Margin</i>	<i>47 %</i>	<i>16 %</i>	<i>41 %</i>	<i>(6)%</i>
Add:				
Depreciation and amortization expense	\$ 1,613	\$ 5,203	\$ 3,435	\$ 11,335
Stock-based compensation expense	75	1,477	(1,340)	4,668
Restructuring costs ⁽¹⁾	52	1,497	139	1,808
Adjusted Gross Profit	\$ 26,999	\$ 21,726	\$ 61,486	\$ 7,387
<i>Adjusted Gross Margin</i>	<i>51 %</i>	<i>26 %</i>	<i>42 %</i>	<i>4 %</i>

(1) Represent costs incurred for restructuring activities, which include severance costs to impacted employees and third party consulting costs incurred during the periods presented.

Adjusted EBITDA

Adjusted EBITDA is a non-GAAP financial measure that we define as net loss adjusted for interest expense (income), net, income tax benefit, depreciation and amortization, stock-based compensation expenses, transaction costs, other (income) expense, net, impairment loss, restructuring and business exit related charges, acquisition costs and change in fair market value of warrant and earn-out contingent liabilities. We believe Adjusted EBITDA is useful in evaluating our operating performance compared to that of other companies in our industry, as this metric generally eliminates the effects of certain factors that may vary from company to company for reasons unrelated to overall operating performance.

The following is a reconciliation of our net loss to Adjusted EBITDA for the three and nine months ended September 30, 2023 and 2022:

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Net loss	\$ (42,286)	\$ (77,581)	\$ (149,994)	\$ (240,219)
Interest (income) expense, net ⁽¹⁾	(1,053)	(190)	(2,092)	999
Income tax benefit	(172)	(65)	(515)	(49,142)
Depreciation and amortization	8,672	10,502	27,640	25,269
Stock-based compensation expense	431	1,273	586	41,553
Impairment loss ⁽²⁾	8,282	—	10,402	—
Transaction, acquisition and business integration costs ⁽³⁾	—	—	—	13,436
Restructuring costs ⁽⁴⁾	2,191	8,993	4,548	18,554
Change in fair market value of financial liabilities ⁽⁵⁾	(590)	(12,978)	(685)	(54,350)
Gain on sale of assets ⁽⁶⁾	—	—	(2,954)	—
Provision for excess and obsolete inventory associated with Legacy Sema4	1,014	—	3,634	—
Other (income) expense, net	1,134	—	(1,668)	(56)
Adjusted EBITDA	\$ (22,377)	\$ (70,046)	\$ (111,098)	\$ (243,956)

- (1) Represents interest income from interest-bearing and money market deposit accounts and the total of interest expense related to our finance leases and interest-bearing loans and interest income earned on money market funds. This also includes the unused line fee and amortization of deferred transaction costs related to the loan and security agreement entered into with SVB.
- (2) Represents the impairment of certain capital and right-of-use asset leases.
- (3) 2022 amounts represent professional service costs incurred in connection with the Legacy GeneDx Acquisition, which include due diligence and legal costs.
- (4) Represent costs incurred for restructuring activities, which include severance packages offered to impacted employees and third party consulting costs incurred during the periods presented.
- (5) Represents the change in fair market value of the liabilities associated with our public warrants, private placement warrants and the earn-out shares that were issuable under the terms of the merger agreement for our business combination.
- (6) Represents a current year gain recognized on the sale of certain assets sold as a result of an auction.

Liquidity and Capital Resources

On April 29, 2022, upon the closing of the Acquisition, we received gross proceeds of \$200 million from the issuance of 1.5 million shares of our Class A common stock pursuant to subscription agreements with certain institutional investors, (the “Acquisition PIPE Investment”). The gross proceeds were partially used to pay for the cash consideration of the Acquisition and transaction costs incurred in connection with the Acquisition.

On January 31, 2023, we announced the closing of an underwritten public offering of 9,956,710 shares of our Class A common stock and a concurrent registered direct offering of 2,353,436 shares of our Class A common stock. On April 17, 2023, we issued the remaining 676,868 shares of our Class A common stock in the registered direct offering. The total gross proceeds were approximately \$150 million.

Subsequent to September 30, 2023, in addition, on October 27, 2023, we entered into a new, five-year senior secured credit facility with an affiliate of Perceptive Advisors and received an initial tranche of \$50 million under the facility. See Note 8, “*Long-Term Debt*” to our condensed consolidated financial statements for further information.

Management believes that our cash and cash equivalents, including the proceeds from the initial tranche under the credit facility, and available-for-sale marketable securities provide us with sufficient liquidity for at least twelve months from the filing date of this Quarterly Report.

Accordingly, our condensed consolidated financial statements included in this Quarterly Report have been prepared on a basis that assumes we will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the ordinary course of business. Nevertheless, we may also seek additional funding in the future through the sale of common or preferred equity or convertible debt securities, the entry into other credit facilities or another form of third-party funding or by seeking other debt financing. For example, we have an effective shelf registration

statement that we filed with the SEC in August of 2022, registering \$300 million shares of our Class A common stock and other securities. Following the underwritten and registered direct offerings described above, approximately \$150 million of securities remained available under this registration statement.

Material Cash Requirements for Known Contractual Obligations and Commitments

We anticipate fulfilling our contractual obligations and commitments with existing cash and cash equivalents and available-for-sale marketable securities, which amounted to \$114.3 million at September 30, 2023, through additional capital raised to finance our operations; see “*Liquidity and Capital Resources*” or through an additional tranche of \$25 million under the Perceptive credit facility, which is subject to certain conditions.

We entered into a settlement agreement related to the Legacy Sema4 business with one of our third-party payors in 2022, in order to settle the claims related to coverage and billing matters allegedly resulting in overpayments by the payor to the Legacy Sema4 business including those related to multi-gene tests, such as carrier screening services. Under the settlement agreement, the total settlement amount is \$42 million, to be paid by us to the payor in a series of installments over the next four years with the final installment payment scheduled to be on or before June 30, 2026. The first installment payment of \$15 million was made on December 30, 2022 and the next installment of \$5.0 million is due in December 2023. In consideration for the payments, the payor has agreed to provide releases of the disputed claims, which releases became effective on or about March 31, 2023. For further information regarding this matter, see Note 4, “*Revenue Recognition*” included within our Annual Report on Form 10-K for the year ended December 31, 2022, and our condensed consolidated financial statements in Note 4, “*Revenue Recognition*,” included within this Quarterly Report, respectively.

Cash Flows

	Nine Months Ended September 30,	
	2023	2022
	(in thousands)	
Net cash used in operating activities	\$ (150,289)	\$ (254,501)
Net cash used in investing activities	(38,862)	(138,488)
Net cash provided by financing activities	139,135	197,250

Operating Activities

Net cash used in operating activities during the nine months ended September 30, 2023 was \$150.3 million, which reflected the cash expenditures associated with the net loss for the current period and unfavorable working capital associated with the wind down of the Legacy Sema4 accounts payable, primarily during the third quarter of 2023.

Net cash used in operating activities during the nine months ended September 30, 2022 was \$254.5 million, which reflected the cash expenditures associated with the net loss for the prior year period and favorable working capital, primarily for accounts payable and accrued expenses to support combined Legacy GeneDx and Legacy Sema4 businesses.

Investing Activities

Net cash used in investing activities during the nine months ended September 30, 2023 was \$38.9 million, which primarily includes net purchases of marketable securities of \$27.3 million, \$12.1 million in consideration on escrow paid for the Legacy GeneDx Acquisition and \$2.9 million in purchases of property and equipment, which was offset partially by \$3.9 million in proceeds from the sale of assets.

Net cash used in investing activities during the nine months ended September 30, 2022 was \$138.5 million, which was attributable to \$127.0 million cash consideration for the Acquisition of Legacy GeneDx, \$5.0 million in purchases of property and equipment and \$6.5 million of costs related to development of internal-use software assets.

Financing Activities

Net cash provided by financing activities during the nine months ended September 30, 2023 was \$139.1 million, which was primarily driven by the \$143.0 million net proceeds from the underwritten public offering and concurrent registered direct offering, net of issuance costs, which was offset partially by the DECD loan payment of \$2.0 million and \$2.1 million of finance lease payments.

Net cash provided by financing activities during the nine months ended September 30, 2022 was \$197.3 million, which was driven by the \$197.7 million proceeds from the Acquisition PIPE Investment, net of issuance costs of \$2.3 million, and the exercise of stock options of \$2.2 million which was offset by \$2.6 million of finance lease principal payments.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about items that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

There have been no material changes to our critical accounting policies and estimates as compared to the critical accounting policies and estimates disclosed in our audited consolidated financial statements and notes thereto included within our Annual Report on Form 10-K for the year ended December 31, 2022, other than the Company's policy for accounting for available-for-sale marketable securities. For further information, see Note 2, "*Summary of Significant Accounting Policies*" to our condensed consolidated financial statements.

JOBS Act Accounting Election

We are an "emerging growth company" within the meaning of the JOBS Act. The JOBS Act allows an emerging growth company to delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. See *Note 1* to our condensed consolidated financial statements for further.

Recent Accounting Pronouncements

Additional information on recent accounting pronouncements can be found in the audited financial statements in Note 2, "*Summary of Significant Accounting Policies*" included within our Annual Report on Form 10-K for the year ended December 31, 2022, and Note 2, "*Summary of Significant Accounting Policies*" to our condensed consolidated financial statements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks in the ordinary course of our business. These risks primarily relate to interest rates. Our cash, cash equivalents, available-for-sale marketable securities and restricted cash consists of bank deposits and money market funds, which totaled \$115.2 million at September 30, 2023 and \$138.3 million at December 31, 2022, respectively. Such interest-bearing instruments carry a degree of risk. However, because our investments are primarily high-quality credit instruments with short-term durations with high-quality institutions, we have not been exposed to, nor do we anticipate being exposed to, material risks due to changes in interest rates. A 100 basis point change in interest rates would not have a material effect on the fair market value of our cash, cash equivalents and restricted cash. The majority of our cash, cash equivalents and restricted cash are uninsured with account balances in excess of the Federal Deposit Insurance Company limits. On March 14, 2023, we announced full access to our capital with nearly 100% of our cash and cash equivalents held in an institution designated as systematically important financial institutions.

The revolving credit facility under our loan and security agreement (the "SVB Agreement") with Silicon Valley Bank ("SVB") in place at September 30, 2023, included variable interest rate terms for the outstanding principal amount of any advance. At September 30, 2023, no amounts had been drawn under the SVB Agreement. The SVB Agreement was terminated effective as of October 27, 2023, and SVB's security interest in our assets and property was released. Our credit agreement with Perceptive Credit Holdings IV, LP includes variable interest rate terms for the outstanding principal amount of \$50 million at October 27, 2023. Therefore, changes in interest rates can impact future interest payments we are obligated to pay.

See Note 8, "*Long-Term Debt*" to our condensed consolidated financial statements for further information.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

As required by Rules 13a-15 and 15d-15 under the Exchange Act, our Chief Executive Officer and Chief Financial Officer carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures at September 30, 2023. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were not effective at September 30, 2023 because of the material weaknesses in internal control over financial reporting at December 31, 2022 that we previously identified in Item 9A. "Controls and Procedures" of our Annual Report on Form 10-K for the year ended December 31, 2022 has not been fully remediated at September 30, 2023.

Notwithstanding the identified material weaknesses in internal control over financial reporting, our management has concluded that our condensed consolidated financial statements included in the Quarterly Report on Form 10-Q are fairly stated in all material respects in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

Previously Reported Material Weaknesses

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of a company's annual or interim financial statements will not be prevented or detected on a timely basis.

As described in more detail in Item 9A. "Controls and Procedures" of our Annual Report on Form 10-K for the year ended December 31, 2022, the material weaknesses identified related to the fact that we did not design and maintain accounting policies, procedures and controls to ensure complete, accurate and timely financial reporting in accordance with U.S. GAAP.

Remediation Plan

Our management is actively engaged and committed to taking the steps necessary to remediate the control deficiencies that constituted the material weaknesses. The Company has continued to improve its organizational capabilities and continues to implement processes and controls to remediate the material weaknesses. Remediation actions undertaken during 2022 and planned are described in more detail in Item 9A. "Controls and Procedures" of our Annual Report on Form 10-K for the year ended December 31, 2022.

We continue to enhance corporate oversight over process-level controls and structures to ensure that there is appropriate assignment of authority, responsibility, and accountability to enable remediation of our material weaknesses. We believe that our remediation plan will be sufficient to remediate the identified material weaknesses and strengthen our controls. As we continue to evaluate, and work to improve our controls, management may determine that additional measures to address control deficiencies or modifications to the remediation plan are necessary.

While we have performed certain remediation activities to strengthen our controls to address the identified material weaknesses, control weaknesses are not considered remediated until new internal controls have been operational for a period of time, are tested, and management concludes that these controls are operating effectively. We will continue to monitor the effectiveness of our remediation measures in connection with our future assessments of the effectiveness of internal control over financial reporting and disclosure controls and procedures, and we will make any changes to the design of our plan and take such other actions that we deem appropriate given the circumstances.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the nine months ended September 30, 2023 covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting, except that on January 1, 2023 a majority of the services provided by OPKO under the OPKO Transition Services Agreement that had been in place since the date of Acquisition

related to certain accounting processes and financial systems expired. We are continuing to take steps to remediate the material weaknesses in our internal control over financial reporting, as discussed above.

Inherent Limitation on the Effectiveness of Internal Control

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures, or our internal controls, will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our Company have been detected.

Part II - Other Information

Item 1. Legal Proceedings

Information required under this Item is contained above in Part I. Financial Information, Item 1, Note 10, “*Litigation and Contingencies*,” included within this Quarterly Report and is incorporated herein by reference.

Item 1A. Risk Factors

You should carefully review and consider the following risk factors and the other information contained or incorporated by reference in this Quarterly Report on Form 10-Q as well as in our other filings with the SEC before deciding whether to invest in our securities. We cannot assure you that any of the events discussed below will not occur. These events could have a material and adverse impact on our business, financial condition, results of operations and prospects. Unless otherwise indicated, references to our business being harmed in these risk factors will include harm to our business, reputation, financial condition, results of operations, net revenue and future prospects. In such event, the trading price of our securities could decline, and you could lose all or part of your investment. This discussion does not address all of the risks that we face, and we may face additional risks and uncertainties that are not presently known to us, or that we currently deem immaterial, which may also impair our business or financial condition. The following discussion should be read in conjunction with the condensed consolidated financial statements and notes thereto included herein.

Our business is subject to various risks, including those described in Part II, Item 1A “*Risk Factors*” (the “*Risk Factor Section*”) beginning on page 62 of our Quarterly Report for the quarterly period ended June 30, 2023, filed with the SEC on August 8, 2023, which Risk Factor Section is incorporated by reference herein.

Except for as set forth below, there have been no material changes in the risk factors included in the Risk Factor Section.

Our credit agreement contains operating and financial restrictions that may limit our business and financing activities.

Our credit agreement with Perceptive Credit Holdings IV, LP contains operating and financial restrictions that may limit our business and financing activities. In particular, our credit agreement includes customary affirmative and negative covenants and events of default, including negative covenants that restrict, among other things, our ability to incur indebtedness and liens, dispose of property and make investments. In addition, the credit agreement requires us to maintain aggregate unrestricted cash of not less than \$5.0 million and minimum levels of quarterly core revenue through the third quarter of 2028. The operating and financial restrictions in the credit agreement, as well as any other financing arrangements that we may enter into, may limit our ability to finance our operations, or engage in, expand, or otherwise pursue our business activities and strategies. Our ability to comply with these or other covenants may be affected by events beyond our control, and future breaches of these or other covenants could result in a default under the credit agreement or any other financing arrangement. If not waived, future defaults could cause all of the outstanding indebtedness under our credit agreement or other financing arrangement to become immediately due and payable and terminate all commitments to extend further credit, if any. Furthermore, if we were unable to repay our credit agreement or other indebtedness then due and payable, secured lenders could proceed against the assets, if any, securing such indebtedness. A default would also likely significantly diminish the market price of our securities.

If we do not have or are unable to generate sufficient cash to repay our debt obligations when they become due and payable, either upon maturity or in the event of a default, we may not be able to obtain additional debt or equity financing on favorable terms, if at all, which may negatively impact our ability to operate and continue our business as a going concern.

If we do not meet the expectations of investors, stockholders or financial analysts, the market price of our securities may decline.

If we do not meet the expectations of investors or securities analysts, the market price of our securities may decline. In addition, fluctuations in the price of our securities could contribute to the loss of all or part of your investment. If an active market for our securities does not continue, the trading price of our securities could be volatile and subject to wide fluctuations in response to various factors, some of which are beyond our control. Any of the factors listed below could have a material adverse effect on your investment in our securities and our securities may trade at prices significantly below the price you paid for them. In such circumstances, the trading price of our securities may not recover and may experience a further decline.

Factors affecting the trading price of our securities may include:

- actual or anticipated fluctuations in our quarterly financial results or the quarterly financial results of companies perceived to be similar to us;
- changes in the market's expectations about our operating results;
- the public's reaction to our press releases, our other public announcements and our filings with the SEC;
- speculation in the press or investment community;
- announcements of technological innovation, new products, acquisitions, strategic alliances, significant agreements by us or competitors;
- success of competitors;
- our operating results falling below our financial guidance or other projections or failing to meet the expectation of securities analysts or investors in a particular period;
- changes in financial estimates and recommendations by securities analysts concerning us or the market in general;
- operating and stock price performance of other companies that investors deem comparable to us;
- our ability to market new and enhanced products on a timely basis;
- changes in laws and regulations affecting our business;
- commencement of, or involvement in, litigation involving us;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- the volume of shares of our Class A common stock available for public sale;
- any major change in our Board or management;
- sales of substantial amounts of Class A common stock by our directors, officers or significant stockholders or the perception that such sales could occur;
- the expiration of the market stand-off or contractual lock-up agreements;
- the realization of any of the risk factors described herein;
- additions or departures of key personnel;
- failure to comply with the requirements of the Nasdaq;
- failure to comply with the Sarbanes-Oxley Act or other laws or regulations;
- actual, potential or perceived control, accounting or reporting problems;
- changes in accounting principles, policies and guidelines; and
- general economic and political conditions such as recessions, rising inflation and interest rates, uncertainty with respect to the U.S. federal budget, global conflicts such as the war in Ukraine and the war in Israel, fuel prices, international currency fluctuations and acts of war or terrorism.

Broad market and industry factors may materially harm the market price of our securities irrespective of our operating performance. The stock market in general and Nasdaq have experienced price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of the particular companies affected. The trading prices and valuations of these stocks, and of our securities, may not be predictable. A loss of investor confidence in the market for the stocks of other companies which investors perceive to be similar to us could depress our stock price regardless of our business, prospects, financial conditions or results of operations. A decline in the market price of our securities also could adversely affect our ability to issue additional securities and our ability to obtain additional financing in the future. Further, the price of our Class A common stock may be subject to additional volatility as a result of our Reverse Stock Split. It is not uncommon for the market price of a company's common stock to decline in the period following a reverse stock split.

In the past, securities class action litigation has often been initiated against companies following periods of volatility in their stock price. In particular, on September 7, 2022, a shareholder class action lawsuit was filed in the United States District Court for the District of Connecticut against the Company and certain of the Company's current and former officers. For further information, see "*Item 1. Legal Proceedings.*" This type of litigation could result in substantial costs and divert our management's attention and resources, and could also require us to make substantial payments to satisfy judgments or to settle litigation.

Item 2. Unregistered Sales of Equity Securities, Use of Proceeds, and Issuer Purchases of Equity Securities

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information**2024 Annual Meeting of Stockholders**

The information below supplements and supersedes the information contained in our proxy statement for the 2023 annual meeting of stockholders (the “2023 Proxy Statement”) with respect to the submission of stockholder proposals.

Future Stockholder Proposals

We anticipate that the 2024 annual meeting of stockholders will be held no later than June 2024. For any proposal to be considered for inclusion in the proxy statement and form of proxy for the Company’s 2024 annual meeting of stockholders, it must be submitted in writing and comply with the requirements of Rule 14a-8 of the Exchange Act. Such proposals must be received by the Company at its principal executive offices a reasonable time before the Company begins to print and mail its 2024 annual meeting proxy materials in order to be considered for inclusion in the proxy materials for the 2024 annual meeting. Stockholder proposals submitted pursuant to Rule 14a-8 under the Exchange Act and intended to be presented at our 2024 annual meeting of stockholders must have been received by us not later than January 10, 2024 in order to be considered for inclusion in our proxy materials for that meeting.

Our 2023 Proxy Statement inadvertently identified January 10, 2023 as the deadline for the submission of proposals pursuant to Rule 14a-8 under the Exchange Act, which is incorrect.

Item 6. Exhibits

The following exhibits are filed as part of, or incorporated by reference into this Quarterly Report.

No.	Description of Exhibit	Form	Exhibit	Filing Date	Filed Herewith
3.1	Third Amended and Restated Certificate of Incorporation of GeneDx Holdings Corp.	8-K	3.1	07/28/2021	
3.2	First Certificate of Amendment of the Third Amended and Restated Certificate of Incorporation of GeneDx Holdings Corp.	8-K	3.1	01/09/2023	
3.3	Second Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of GeneDx Holdings Corp.	8-K	3.1	04/17/2023	
3.4	Third Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of GeneDx Holdings Corp.	8-K	3.1	04/28/2023	
3.5	Amended and Restated Bylaws of GeneDx Holdings Corp.	8-K	3.2	01/09/2023	
31.1	Certification of Principal Executive Officer Pursuant to Securities Exchange Act Rules 13a-14(a) and 15(d)-14(a), as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
31.2	Certification of Principal Financial Officer Pursuant to Securities Exchange Act Rules 13a-14(a) and 15(d)-14(a), as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
32.1**	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
32.2**	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
101.INS	Inline XBRL Instance Document.				X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.				X

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101.SCH	Inline XBRL Taxonomy Extension Schema Document.	X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.	X
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document.	X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.	X
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibit 101).	X

** Furnished

Signatures

Pursuant to the requirements of Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GENEDX HOLDINGS CORP.

Date: November 3, 2023

/s/ Katherine Stueland
Name: Katherine Stueland
Title: Chief Executive Officer and Director (Principal Executive Officer)

Date: November 3, 2023

/s/ Kevin Feeley
Name: Kevin Feeley
Title: Chief Financial Officer (Principal Financial Officer)

CERTIFICATIONS
PURSUANT TO RULES 13a-14(a) AND 15d-14(a)
UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Katherine Stueland, certify that:

1. I have reviewed this quarterly report on Form 10-Q of GeneDx Holdings Corp. (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the

audit committee of the registrant's board of directors (or persons performing the equivalent functions):

- a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 3, 2023

By: /s/ Katherine Stueland

Katherine Stueland

Chief Executive Officer
(Principal Executive Officer)

CERTIFICATIONS
PURSUANT TO RULES 13a-14(a) AND 15d-14(a)
UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Kevin Feeley, certify that:

1. I have reviewed this quarterly report on Form 10-Q of GeneDx Holdings Corp. (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the

audit committee of the registrant's board of directors (or persons performing the equivalent functions):

- a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 3, 2023

By: /s/ Kevin Feeley

Kevin Feeley

Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of GeneDx Holdings Corp. (the “registrant”) on Form 10-Q for the quarterly period ended September 30, 2023, as filed with the Securities and Exchange Commission (the “Report”), I, Katherine Stueland, Chief Executive Officer of the registrant, certify, pursuant to 18 U.S.C. §1350, as added by §906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. To my knowledge, the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the registrant.

Date: November 3, 2023

By: /s/ Katherine Stueland
Katherine Stueland
Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of GeneDx Holdings Corp. (the “registrant”) on Form 10-Q for the quarterly period ended September 30, 2023, as filed with the Securities and Exchange Commission (the “Report”), I, Kevin Feeley, Chief Financial Officer of the registrant, certify, pursuant to 18 U.S.C. §1350, as added by §906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. To my knowledge, the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the registrant.

Date: November 3, 2023

By: /s/ Kevin Feeley

Kevin Feeley

Chief Financial Officer
(Principal Financial Officer)