UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K/A

(Amendment No. 1)
CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): **July 28, 2021 (July 22, 2021)**

Sema4 Holdings Corp.
(Exact name of registrant as specified in its charter)

Delaware	001-39482	85-1966622
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

333 Ludlow Street, North Tower, 8th Floor Stamford, Connecticut	06902
(Address of principal executive offices)	(Zip Code)

(800) 298-6470

Registrant's telephone number, including area code

CM Life Sciences, Inc.
c/o Corvex Management
667 Madison Avenue
New York, New York
(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value $0.0001 per share	SMFR	The Nasdaq Global Select Market
Warrants to purchase one share of Class A common stock, each at an exercise price of $11.50 per share	SMFRW	The Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☒

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. ☐

EXPLANATORY NOTE

On July 28, 2021, Sema4 Holdings Corp. ("*Sema4 Holdings*") (formerly known as CM Life Sciences, Inc. ("*CMLS*")), a Delaware corporation, filed a Current Report on Form 8-K (the "*Original 8-K*") to report that it completed the transactions contemplated by that certain Agreement and Plan of Merger, dated February 9, 2021 (as amended, the "*Merger Agreement*"), among CMLS, S-IV Sub, Inc., a wholly-owned subsidiary of CMLS ("*Merger Sub*"), and Mount Sinai Genomics, Inc. d/b/a Sema4 ("*Sema4*"). On July 22, 2021, as contemplated by the Merger Agreement, Merger Sub was merged with and into Sema4, with Sema4 surviving the Merger (the "*Surviving Corporation*") as a wholly-owned subsidiary of CMLS (the "*Merger*" and, together with the other transactions contemplated by the Merger Agreement, the "*Business Combination*").

The Original 8-K was filed by Sema4 Holdings to describe certain material changes to its business as a result of and following the Business Combination. This Amendment No. 1 on Form 8-K/A to the Original 8-K (this "*Amendment*" and the Original 8-K, as amended by this Amendment, this "*Report*") is being filed to (a) provide updated financial statements including (i) the unaudited financial statements of Sema4 for the three and six months ended June 30, 2021, and (ii) the pro forma financial statements for the combined entities as of and for the three and six months ended June 30, 2021 and for the year ended December 31, 2020, and (b) amend the section entitled "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" which was part of the Form 10 information disclosed under and incorporated by reference to Item 2.01 to the Original 8-K to reflect such unaudited financial statements.

Except as described above, no other changes have been made to the Original 8-K and this Amendment does not modify or update any other information in the Original 8-K. Accordingly, this Amendment should be read in conjunction with the Original 8-K and Sema4 Holdings' filings made with the Securities and Exchange Commission (the "*SEC*") subsequent to the date of the Original 8-K.

Item 2.01. Completion of Acquisition or Disposition of Assets.

Financial Information

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes and other financial information appearing elsewhere in this Report. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this Report, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Unless the context otherwise requires, references herein to the "Company," "we," "us" or "our" refers to Sema4, prior to the consummation of the Business Combination (the "Closing," and such date of the consummation of the Business Combination, the "Closing Date") and to Sema4 Holdings and its subsidiary following the Business Combination.

We are a patient-centered, health intelligence company with a mission to use artificial intelligence, or AI, and machine learning to enable personalized medicine for all. By leveraging leading data scientists and technology, our platform powers remarkable and unique insights that transform the practice of medicine including how disease is diagnosed, treated, and prevented.

We were established out of the Icahn School of Medicine at Mount Sinai, or ISMMS, and commenced operations in June 2017 as a commercial entity that could effectively engage diverse patient populations and health care institutions at scale. We have since established and deployed our comprehensive and integrated genomic and clinical data platform and established a mature diagnostic testing business. We now maintain a database that includes more than 11.7 million de-identified individual clinical records, many with genomic profiles. We also manage a data asset over 35 petabytes in size, expanding at 1.2 petabytes per month with an accelerating growth rate.

Currently, we derive the majority of revenue from our diagnostic test solutions. Our diagnostic business generates revenue and engages with patients primarily through our Women's Health and Oncology solutions.

Our Women's Health solutions sequence and analyze an industry-leading number of genes and use interpretive information tools to translate raw sequencing and clinical data efficiently and accurately into digestible clinical reports that guide decision-making by patients and physicians. Our Oncology diagnostic solutions feature both somatic tumor profiling and hereditary cancer screenings, along with a foundational whole exome and whole transcriptome sequencing approach. Our Sema4 Signal Hereditary Cancer solution determines if a patient carries an inherited genetic change that increases the risk of cancer or informs on cancer treatment. We believe our Signal Whole Exome and Transcriptome solution is one of the most comprehensive molecular profiling solutions from a commercial entity to receive New York State approval. Beginning in May of 2020, we were also able to expand our diagnostic testing services to include testing for the presence of COVID-19 infection.

We have also expanded beyond diagnostic testing to enter into collaboration service agreements with third parties to provide diagnostic testing, research, and related data aggregation reporting services. We have established and continue to seek strategic relationships with pharmaceutical and biotech, or Biopharma, companies to enable innovation across the entire drug lifecycle, from next-generation drug discovery and development, to post-market efficacy surveillance, to informing on bioavailability, toxicity, tolerability, and other features critical to drug development.

Factors Affecting Our Performance

We believe several important factors have impacted, and that we expect 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 “Risk Factors” for more information.

Number of accessioned and resulted tests

We believe the number of accessioned and resulted tests in any period is an important indicator of the growth in our diagnostic testing services and correlates with long-term patient relationships and the size of our genomic database. A test is accessioned when we receive the test at our laboratory, the relevant information about the test is entered into our computer system and the test sample is routed to the appropriate workflow. Once the appropriate workflow is completed, the test is resulted and details are provided to ordered patients or healthcare professionals for reviews.

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, and we have in the past needed additional time and resources to comply with them.

We expect to continue to focus our resources on increasing the adoption of, and expanding coverage and reimbursement for, our current tests 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 could be harmed and our future prospects and its business could suffer.

Ability to lower the costs associated with performing our tests

Reducing the costs associated with performing our diagnostic tests is both a focus and a strategic objective of ours. 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 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 Centrellis and Traversa platforms to develop a pipeline of future disease-specific research and diagnostic and therapeutic products and services. We have limited experience with the development or commercialization of clinical or research products in connection with our database and our Centrellis 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.

Key Performance Indicators

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 driving database diversity and enabling potential identification of variants of unknown significance and population-specific insights. The number of tests that we accession is a key indicator that we use to assess the operational efficiency of our business. A test is accessioned when we receive the test at our laboratory, the relevant information about the test is entered into our computer system and the test sample is routed into the appropriate workflow.

During the year ended December 31, 2020, we accessioned approximately 520,660 tests in our laboratories, 311,987 tests of which were for COVID-19, compared to December 31, 2019, in which we accessioned approximately 225,863 tests in our laboratories, and December 31, 2018, in which we accessioned approximately 154,151 tests in our laboratories. The 47% increase in volume from 2018 to 2019 represents a continuous expansion to a national footprint and expanded test offerings, and the 131% increase from 2019 to 2020 largely resulted from newly entered service agreements for COVID-19 testing, offset by a slowdown in the base diagnostic business during the beginning of the pandemic given that many of our customers, including hospitals and clinics, had suspended non-emergency appointments and services. Once the appropriate workflow is completed, the test is resulted and details are provided to ordered patients or healthcare professionals for reviews.

During the six months ended June 30, 2021, we accessioned approximately 350,173 tests in our laboratories, 216,552 tests of which were for COVID-19, compared to the period ended June 30, 2020, in which we accessioned approximately 99,449 tests in our laboratories, 3,872 of which were for COVID-19. We resulted approximately 357,404 tests in our laboratories, 218,757 tests of which were for COVID-19, compared to the period ended June 30, 2020, in which we resulted approximately 112,008 tests in our laboratories, 16,411 of which were for COVID-19. This 252% and 219% increase in accessioned and resulted volumes, respectively, from 2020 to 2021 largely resulted from newly entered service agreements for COVID-19 testing as well as an increase in non-COVID-19 institutional testing. The volume of resulted tests during the periods may include tests accessioned in prior periods that are completed and delivered during the period.

COVID-19 Impact

In March 2020, the World Health Organization declared the recent novel coronavirus, or COVID-19, outbreak a pandemic. COVID-19 has had, and continues to have, an extensive impact on the global health and economic environments. Many jurisdictions, including those in which we have locations, have implemented measures to combat the outbreak, such as travel restrictions and shelter in place orders. In addition, the healthcare sector generally experienced a decline in discretionary care services at the onset of the pandemic.

Beginning in April 2020, our diagnostic test volumes decreased significantly as compared to the prior year as a result of COVID-19 and the related limitations and priorities across the healthcare system. In response, beginning in May 2020, we entered into several service agreements with state governments and healthcare institutions to provide testing for the presence of COVID-19 infection. COVID-19 test volumes grew significantly from the introduction of the service offering through the remainder of the year. To support the rapid expansion of COVID-19 test volumes, we have increased our workforce through both temporary contractors and employees. In addition, while most of our revenues from genetic testing rely upon reimbursements from third-party payors, healthcare institutions, and individuals, the majority of our COVID-19 test revenues rely upon reimbursements from state governments and healthcare institutions. In addition, COVID-19 testing yields lower revenues per tests and incurs lower costs to perform each test. We have also experienced a slowdown in receivable collections since the onset of the pandemic, but do not expect those collection trends to continue.

As part of our response to COVID-19, we have implemented the following strategies to mitigate operating risks, reduce costs and improve cash collections.

- Made significant advance purchases of test-related inventory in order to reduce the risk of potential business interruptions related to supply chain disruption;
- Engaged third-party vendors to collect and test COVID-19 samples to reduce operating risks related to employee health;
- Cancelled the 2020 annual merit compensation increase temporarily implemented the employee salary reduction programs from May through July 2020, and deferred the 401(k) employer match from May through December 2020. The employer match was reinstated in January 2021, and the deferred portion was funded on March 9, 2021; and
- To support our sales employees with a commission-based compensation structure, we implemented temporary minimum commissions during the second quarter of 2020. No such minimums were in place in any quarter after the second quarter nor are any such minimums expected to be implemented again in the near term. No employee layoffs were implemented as part of these austerity measures.

As conditions begin to improve, we are focused on overhauling our revenue cycle, and as part of transformational activities have hired a Chief Revenue Officer and established a revenue cycle Center of Excellence. As part of our efforts to improve our collection efficiency and overall financial health, we are also undergoing various process transformations within the Order-to-Cash and Procure-to-Pay cycles.

While test volumes have since improved, we continue to experience changes in the mix of tests due to the impact of COVID-19. We anticipate that demand for COVID-19 tests will eventually decrease as vaccines continue to be developed and deployed to the general population. However, no additional decline is expected for our other revenue streams for the remainder of 2021. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations, and financial condition will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning COVID-19, the actions taken to contain it or treat it and the economic impact on local, regional, national and international markets and supply chains. Therefore, COVID-19 could continue to have a material impact on our results of operations, cash flows, and financial condition for the foreseeable future.

In March 2020, the Coronavirus Aid, Relief and Economic Security Act, or the CARES Act, was signed into law which 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, or PRF, distribution and $2.8 million received under the Employee Retention Credit, or ERC, distribution. In 2021, we received an additional $5.6 million under the PRF distribution.

PRF distributions 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 PRF distribution have been met. As a result, we recorded the PRF distributions in other income (expense), net in the statements of operations, and comprehensive loss during the periods in which we received the distributions.

ERC distributions are refundable tax credits for 50% of qualified wages paid to employees during the pandemic. A company is eligible for the ERC if it has not received a Paycheck Protection Program loan under the Cares Act and (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 are re-evaluating our position. As such, we deferred the recognition of the ERC distribution and recorded the proceeds in other liabilities on the balance sheets.

Business Combination

On July 22, 2021, CMLS and Sema4 consummated the merger contemplated by the Merger Agreement, whereby Merger Sub merged with and into Sema4, with Sema4 being the surviving corporation and a wholly-owned subsidiary of CMLS.

Components of Results of Operations

Revenue

We derive the majority of our revenue from diagnostic testing services, which primarily relate to Women’s Health, Oncology, and COVID-19. We also recognize revenue from collaboration service agreements with Biopharma companies and other third parties under which we provide diagnostic testing and related data aggregation reporting services.

In accordance with the Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers* ("ASC 606"), we recognize revenue when control of the promised goods or services is transferred to the customer in an amount that reflects the consideration which we expect to be entitled to in exchange for those goods or services.

Diagnostic Test Revenue

We primarily generate revenue from performing diagnostic testing services for three groups of customers: patients with third-party insurance coverage; patients without third-party insurance coverage or those who elect to self-pay; and institutional clients, such as hospitals, clinics, state governments, and reference laboratories. Customers are billed upon delivery of test results. The amount of revenue recognized for diagnostic testing services depends on several 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 patients with third-party insurance coverage.

In accordance with the ASC 606, revenue is recognized at the point in time in which test results are delivered to customers in an amount that reflects what we expect to collect in exchange for our services.

Other Revenue

We generate revenue from providing diagnostic testing and related data aggregation reporting services under both short-term and long-term project-based collaboration service agreements with third parties. The terms of these contracts generally include non-refundable upfront payments, which we record as contract liabilities, and variable payments based upon the achievement of certain milestones during the contract term.

In accordance with the ASC 606, we recognize revenue for collaboration service agreements over time, based on costs incurred during the contract period.

With respect to existing collaboration 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 diagnostic testing and collaboration services. These costs include expenses for reagents and laboratory supplies, personnel-related expenses (comprising salaries and benefits), stock-based compensation, shipping and handling fees, costs of third-party reference lab testing and third-party providers of genetic counseling and phlebotomy services, amortization of software development costs and equipment and allocated facility costs associated with testing. Allocated facility 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 quarter to quarter.

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, costs of reagents and laboratory supplies, costs of consultants and third-party services, equipment and related depreciation expenses, non-capitalizable software development costs, and allocated facility and information technology costs associated with genomics medical research. Research and development costs are expensed as incurred.

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 medical education. 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 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, strategy, 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 the Nasdaq and of the SEC; director and officer insurance premiums and investor relations. 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.

Related Party Expenses

Related party expenses consist of amounts due to ISMMS for expenses under our transition service agreement which expired at the end of the first quarter of 2021, and other service agreements and arrangements. Additional information can be found in Sema4’s audited financial statements in Note 6, “Related Party Transactions” included within CMLS's definitive proxy statement filed with the SEC on

July 2, 2021 and Sema4's unaudited condensed financial statements in Note 6, “Related Party Transactions.”

We expect related party expenses to decrease as we establish our own internal and external resources to fulfill the administrative and other services we have historically procured from ISMMS.

Interest Income

Interest income consists of interest earned on money market funds.

Interest Expense

Interest expense consists of interest costs related to our capital leases and our long-term debt arrangements.

Other Income, Net

Other income, net primarily consists of certain funding received under the CARES Act and, gains and losses on equipment disposals. We recognized $2.6 million of the $5.4 million of funding received under the CARES Act as other income, net on the statements of operations and comprehensive loss during the three and six months ended June 30, 2020 and recognized $5.6 million of additional funding received under the CARES Act during the first quarter of 2021 and the amount is included in other income, net for the period ended six months ended June 30, 2021.

Comparison of the Three Months Ended June 30, 2021, and 2020

The following table sets forth our results of operations for the periods presented (in thousands):

	Three Months Ended June 30,	
	2021	2020
Revenue		
Diagnostic test revenue	$ 44,803	$ 29,796
Other revenue	2,062	306
Total revenue	46,865	30,102
Cost of services	49,631	35,985
Gross (loss) profit	(2,766)	(5,883)
Research and development	11,954	9,361
Selling and marketing	16,247	8,686
General and administrative	12,794	8,121
Related party expenses	888	2,111
Loss from operations	(44,649)	(34,162)
Other income (expense):		
Interest income	9	76
Interest expense	(722)	(615)
Other income, net	—	2,649
Total other income (expense), net	(713)	2,110
Loss before income taxes	(45,362)	(32,052)
Income tax provision	—	—
Net loss and comprehensive loss	$ (45,362)	$ (32,052)

Revenue

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Diagnostic test revenue	$ 44,803	$ 29,796	$ 15,007	50 %
Other revenue	2,062	306	1,756	574 %
Total revenue	$ 46,865	$ 30,102	$ 16,763	56 %

Total revenue increased by $16.8 million, or 56%, from $30.1 million for the three months ended June 30, 2020, to $46.9 million for the three months ended June 30, 2021.

Diagnostic test revenue increased by $15.0 million, or 50%, from $29.8 million for the three months ended June 30, 2020, to $44.8 million for the three months ended June 30, 2021. The increase was primarily attributable to an increase in volumes of 149%, partially offset by the change in the mix of tests performed and reduced reimbursement rates. The increase in volume was primarily driven by the introduction of COVID-19 testing in the second quarter of 2020, and an increase in performing large carrier screening tests.

Other revenue increased by $1.8 million, or 574%, from $0.3 million for the three months ended June 30, 2020, to $2.1 million for the three months ended June 30, 2021. The increase was primarily attributable to growth in collaboration service activities due to the execution of three new third-party contracts. Other revenues are expected to continue to be driven predominately by services performed pursuant to contracts with third parties.

Cost of Services

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Cost of services	$ 49,631	$ 35,985	$ 13,646	38 %

Cost of services increased by $13.6 million, or 38%, from $36.0 million for the three months ended June 30, 2020, to $49.6 million for the three months ended June 30, 2021. The increase was primarily driven by the following components: a $3.9 million increase in overall personnel-related expenses driven by an increase in average headcount; a $1.9 million increase in outside labor costs driven by temporary hires contracted to perform COVID-19 testing activities; a $1.7 million increase in expenses for logistical costs due to higher accessioned volumes; a $2.7 million increase in reagents and laboratory supplies expense due primarily to the increase in accessioned volumes; a $0.9 million increase in software expenses due to increased cloud storage and expanded computing capacity requirements for testing data; a $2.3 million increase in depreciation expenses driven by our Stamford laboratory facility commencing operations and a $0.2 million increase in occupancy expenses in connection with our laboratory move at the end of 2020, with production activities commencing at the Stamford facility in the first quarter of 2021.

Research and Development

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Research and Development	$ 11,954	$ 9,361	$ 2,593	28 %

Research and development expense increased by $2.6 million, or 28%, from $9.4 million for the three months ended June 30, 2020, to $12.0 million for the three months ended June 30, 2021. The increase was primarily attributable to an overall increase in depreciation costs by $1.2 million; a $0.8 million increase in expenses for reagents, laboratory supplies and laboratory software for research and development; an overall increase in compensation costs of $0.2 million; and a $0.4 million increase in consulting services.

Selling and Marketing

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Selling and marketing	$ 16,247	$ 8,686	$ 7,561	87 %

Selling and marketing expense increased by $7.6 million, or 87%, from $8.7 million for the three months ended June 30, 2020 to $16.2 million for the three months ended June 30, 2021. The increase was primarily attributable to the following cost components: a $5.2 million increase in personnel-related expenses driven by increased headcount; a $0.7 million increase in travel and business expense; a $0.5 million increase in information technology-related expenses; a $0.7 million increase in consulting service expenses to support revenue cycle transformation initiatives; and a $0.2 million increase in other administrative expenses.

General and Administrative

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
General and administrative	$ 12,794	$ 8,121	$ 4,673	58 %

General and administrative expense increased by $4.7 million, or 58%, from $8.1 million for the three months ended June 30, 2020, to $12.8 million for the three months ended June 30, 2021. The increase was primarily attributable to an increase in personnel-related costs of $1.2 million driven by an increase in headcount; a $0.3 million increase in software expenses due to increased cloud storage requirements; and an increase in expenses of $3.2 million for professional services incurred in connection with pursuing the Business Combination transaction that did not meet the requirement for capitalization. These increases were partially offset by a $0.1 million decrease in occupancy expenses in connection with our laboratory move from New York City to Stamford, Connecticut.

Related Party Expenses

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Related party expenses	$ 888	$ 2,111	$ (1,223)	(58)%

Related party expenses decreased by $1.2 million, or 58%, from $2.1 million for the three months ended June 30, 2020, to $0.9 million for the three months ended June 30, 2021. The decrease was primarily attributable to the following cost components: a $0.5 million decrease in fees associated with information technology support pursuant to the transition services agreement with Icahn School of Medicine at Mount Sinai ("ISMMS"); and a $0.7 million decrease in rent and facility expenses driven by a reduction of office and lab space leased from ISMMS pursuant to the transition services agreement, which ended in first quarter of 2021.

Interest Income

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Interest income	$ 9	$ 76	$ (67)	(88)%

Interest income decreased by $0.1 million, or 88%, from $0.1 million for the three months ended June 30, 2020, to a nominal amount for the three months ended June 30, 2021. The decrease was due to declines in interest rates on money market deposit accounts and reductions in the average cash balances held in these interest-bearing accounts.

Interest Expense

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Interest expense	$ (722)	$ (615)	$ (107)	17 %

Interest expense increased by $0.1 million, or 17%, from $0.6 million for the three months ended June 30, 2020, to $0.7 million for the three months ended June 30, 2021. The increase was driven by new loans executed in the second half of 2020.

Other Income, Net

	Three Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Other income, net	$ —	$ 2,649	$ (2,649)	100 %

Other income, net decreased by $2.6 million from $2.6 million for the three months ended June 30, 2020, to no amount recorded for the three months ended June 30, 2021. The decrease in other income, net was primarily attributable to $2.6 million in funding that we received and recognized under the CARES Act during the three months ended June 30, 2020.

Comparison of the Six Months Ended June 30, 2021, and 2020

The following table sets forth our results of operations for the periods presented (in thousands):

	Six Months Ended June 30,	
	2021	2020
Revenue		
Diagnostic test revenue	$ 107,563	$ 75,866
Other revenue	3,653	891
Total revenue	111,216	76,757
Cost of services	121,443	75,224
Gross (loss) profit	(10,227)	1,533
Research and development	65,085	22,457
Selling and marketing	47,816	20,419
General and administrative	114,711	15,285
Related party expenses	2,685	4,306
Loss from operations	(240,524)	(60,934)
Other income (expense):		
Interest income	30	410
Interest expense	(1,445)	(1,189)
Other income, net	5,584	2,671
Total other income (expense), net	4,169	1,892
Loss before income taxes	(236,355)	(59,042)
Income tax provision	—	—
Net loss and comprehensive loss	$ (236,355)	$ (59,042)

Revenue

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Diagnostic test revenue	$ 107,563	$ 75,866	$ 31,697	42 %
Other revenue	3,653	891	2,762	310 %
Total revenue	$ 111,216	$ 76,757	$ 34,459	45 %

Total revenue increased by $34.5 million, or 45%, from $76.8 million for the six months ended June 30, 2020, to $111.2 million for the six months ended June 30, 2021.

Diagnostic test revenue increased by $31.7 million, or 42%, from $75.9 million for the six months ended June 30, 2020, to $107.6 million for the six months ended June 30, 2021. The increase was primarily attributable to a 40% increase in volumes (e.g., COVID-19) and overall increase in volumes of 252%, partially offset by the change in the mix of tests performed and reduced reimbursement rates. COVID-19 testing was introduced in May of 2020 which had an immaterial impact on volume during the six months ended June 30, 2020, compared to approximately 217,000 tests in the six months ended June

30, 2021. There was also an increase in large carrier screening tests performed during the six months ended June 30, 2020.

Other revenue increased by $2.8 million, or 310%, from $0.9 million for the six months ended June 30, 2020, to $3.7 million for the six months ended June 30, 2021. The increase was primarily attributable to growth in collaboration service activities due to the execution of two new third-party contracts, partially offset by reduced revenues recognized related to an existing third-party contract. Other revenues are expected to continue to be driven predominately by services performed pursuant to contracts with third parties.

Cost of Services

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Cost of services	$ 121,443	$ 75,224	$ 46,219	61 %

Cost of services increased by $46.2 million, or 61%, from $75.2 million for the six months ended June 30, 2020, to $121.4 million for the six months ended June 30, 2021. The increase was primarily driven by the following cost components: a $19.5 million increase in stock-based compensation expense primarily driven by the increase in fair value of the liability-classified awards; a $8.0 million increase in personnel-related expenses driven by an increase in average headcount; a $4.3 million increase in outside labor costs driven by temporary hires contracted to perform COVID-19 testing activities; a $2.9 million increase in logistical expenses as a result of an increase in operations; a $2.5 million increase in reagents and laboratory supplies expense due primarily to the 252% increase in accessioned volumes coupled with the lower per-test cost of performing carrier screening and COVID-19 tests relative to our other tests; a $2.0 million increase in software expenses due to increased cloud storage and expanded computing capacity requirements from New York City to Stamford, Connecticut for testing data; a $2.4 million increase in the inventory obsolescence reserve for expiring COVID-19 testing kits; and a $1.0 million increase in occupancy expenses and a $3.6 million increase in depreciation expenses in connection with our laboratory move at the end of 2020, with production activities commencing at the Stamford facility in the first quarter of 2021.

Research and Development

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Research and Development	$ 65,085	$ 22,457	$ 42,628	190 %

Research and development expenses increased by $42.6 million, or 190%, from $22.5 million for the six months ended June 30, 2020, to $65.1 million for the six months ended June 30, 2021. The increase was primarily attributable to the following cost components: a $37.7 million increase in stock-based compensation expense driven by the increase in fair value of the liability-classified awards; and a $2.7 million increase in expenses for reagents, laboratory supplies, and laboratory software for research and development; and $2.2 million increase in depreciation expenses.

Selling and Marketing

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Selling and marketing	$ 47,816	$ 20,419	$ 27,397	134 %

Selling and marketing expenses increased by $27.4 million, or 134%, from $20.4 million for the six months ended June 30, 2020, to $47.8 million for the six months ended June 30, 2021. The increase was primarily attributable to the following cost components: an $18.4 million increase in stock-based compensation expense driven by the increase in fair value of the liability-classified awards; a $6.2 million increase in personnel-related expenses driven by increased headcount; a $1.2 million increase in consulting service expenses to support revenue cycle transformation initiatives; a $1.0 million increase in information technology-related expenses; a $0.3 million increase in other administrative expenses; and a $0.1 million increase in travel and business expenses.

General and Administrative

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
General and administrative	$ 114,711	$ 15,285	$ 99,426	650 %

General and administrative expenses increased by $99.4 million, or 650%, from $15.3 million for the six months ended June 30, 2020, to $114.7 million for the six months ended June 30, 2021. The increase was primarily attributable to the following cost components: an $88.3 million increase in stock-based compensation expense driven by the increase in fair value of the liability-classified awards and an increase in the number of outstanding awards; a $5.2 million increase in expenses incurred in connection with pursuing the Business Combination transaction that did not meet the requirement for capitalization; a $4.2 million increase in personnel-related expenses driven by an increase in average headcount including executive headcount; a $0.6 million increase in software expenses due to increased cloud storage requirements; and a $1.6 million increase in insurance expenses driven by transitioning to obtaining standalone insurance policies separate from ISMMS. These increases were partially offset by a $0.7 million decrease in occupancy expenses in connection with our laboratory move from New York City to Stamford, Connecticut.

Related Party Expenses

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Related party expenses	$ 2,685	$ 4,306	$ (1,621)	(38)%

Related party expenses decreased by $1.6 million, or 38%, from $4.3 million for the six months ended June 30, 2020, to $2.7 million for the six months ended June 30, 2021. The decrease was primarily attributable to the following cost components: a $0.7 million decrease in fees associated with information technology support pursuant to the transition services agreement with ISMMS; and a $0.9 million decrease in rent and facility expenses driven by a reduction of office and lab space leased from ISMMS pursuant to the transition services agreement which ended in the first quarter of 2021.

Interest Income

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Interest income	$ 30	$ 410	$ (380)	(93)%

Interest income decreased by $0.4 million, or 93%, from $0.4 million for the six months ended June 30, 2020, to a nominal amount for the six months ended June 30, 2021. The decrease was due to declines in interest rates on money market deposit accounts and reductions in the average cash balances held in these interest-bearing accounts.

Interest Expense

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Interest expense	$ (1,445)	$ (1,189)	$ (256)	22 %

Interest expense increased by $0.3 million, or 22%, from $1.2 million for the six months ended June 30, 2020, to $1.4 million for the six months ended June 30, 2021. The increase was driven by new capital lease obligations for our Stamford laboratory facility which commenced operations in 2021.

Other Income, Net

	Six Months Ended June 30,		Change 2020 to 2021	
	2021	2020	$	%
	(dollars in thousands)			
Other income, net	$ 5,584	$ 2,671	$ 2,913	109 %

Other income, net increased by $2.9 million from $2.7 million for the six months ended June 30, 2020, to $5.6 million for the six months ended June 30, 2021. The increase in other income, net was primarily attributable to $5.6 million in funding that we received and recognized as other income under the CARES Act in the first quarter of 2021.

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, as a component in determining employee bonus compensation, 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, has limitations as an analytical tool, 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;
- provision for income taxes, which may be a necessary element of our costs and ability to operate;
- 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 stock-based compensation expense, and COVID-19 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 revenue to our Adjusted Gross Profit and Adjusted Gross Margin for the three months ended June 30, 2021, and 2020:

	Three Months Ended June 30,	
	2021	**2020**
	(in thousands)	
Revenue	$ 46,865	$ 30,102
Cost of services	49,631	35,985
Gross (Loss) Profit	**(2,766)**	**(5,883)**
Gross Margin	**(6)%**	**(20)%**
Add:		
Stock-based compensation expense	(319)	(126)
COVID-19 costs[1]	—	3,179
Adjusted Gross (Loss) Profit	**$ (3,085)**	**$ (2,830)**
Adjusted Gross Margin	**(7) %**	**(9) %**

(1) Represents labor costs with respect to laboratory employees' downtime. During the second quarter of 2020, we did not reduce the workforce in our laboratory from COVID-19. However, we suffered significantly due to the decrease in volume in Women's Health and other products. Accordingly, we have adjusted our Gross Profit to reflect the management-assessed impact from the decrease in productivity of existing laboratory employees due to COVID-19 in the second quarter of 2020.

The following is a reconciliation of revenue to our Adjusted Gross Profit and Adjusted Gross Margin for the six months ended June 30, 2021, and 2020:

	Six Months Ended June 30,	
	2021	2020
	(in thousands)	
Revenue	$ 111,216	$ 76,757
Cost of services	121,443	75,224
Gross (Loss) Profit	**(10,227)**	**1,533**
Gross Margin	**(9)%**	**2 %**
Add:		
Stock-based compensation expense	19,463	(6)
COVID Costs[1]	—	3,179
Adjusted Gross Profit	**$ 9,236**	**$ 4,706**
Adjusted Gross Margin	**8 %**	**6 %**

(1) Represents labor costs with respect to laboratory employees' downtime. During the second quarter of 2020, we did not reduce the workforce in our laboratory from COVID-19. However, we suffered significantly due to the decrease in volume in Women's Health and other products. Accordingly, we have adjusted our Gross Profit to reflect the management-assessed impact from the decrease in productivity of existing laboratory employees due to COVID-19 in the second quarter of 2020.

Adjusted EBITDA

Adjusted EBITDA is a non-GAAP financial measure that we define as net loss adjusted for interest expense, net, depreciation and amortization, stock-based compensation expenses, transaction costs, other (income) expense, net and COVID-19 costs. 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 items 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 months ended June 30, 2021, and 2020:

	Three Months Ended June 30,	
	2021	2020
	(in thousands)	
Net loss	$ (45,362)	$ (32,052)
Interest expense, net[1]	713	539
Depreciation and amortization	5,619	2,682
Stock-based compensation expense	(519)	(195)
Transaction costs[2]	3,151	—
Other (income) expense, net[3]	—	(2,617)
COVID-19 costs[4]	—	3,179
Adjusted EBITDA	$ (36,398)	$ (28,464)

(1) Represents the total of Interest Expense related to our capital leases and interest-bearing loans and Interest Income on money market funds.
(2) Represents professional service costs incurred in connection with pursuing the Business Combination transaction that did not meet the requirement for capitalization.
(3) For the three months ended June 30, 2020, consists of funding received under the CARES Act Provider Relief Fund.
(4) Represents labor costs with respect to laboratory employees' downtime. During the second quarter of 2020, we did not reduce the workforce in our laboratory from COVID-19. However, we suffered significantly due to the decrease in volume in Women's Health and other products. Accordingly, we have adjusted our Gross Profit to reflect the management-assessed impact from the decrease in productivity of existing laboratory employees due to COVID-19 in the second quarter of 2020.

The following is a reconciliation of our net loss to Adjusted EBITDA for the six months ended June 30, 2021, and 2020:

	Six Months Ended June 30,	
	2021	2020
	(in thousands)	
Net loss	$ (236,355)	$ (59,042)
Interest expense, net[1]	1,415	779
Depreciation and amortization	10,521	5,080
Stock-based compensation expense	164,443	620
Transaction costs[2]	5,105	—
Other (income) expense, net[3]	(5,584)	(2,617)
COVID-19 costs[4]		3,179
Adjusted EBITDA	$ (60,455)	$ (52,001)

(1) Represents the total of Interest Expense related to our capital leases and interest-bearing loans and Interest Income on money market funds.
(2) Represents professional service costs incurred in connection with pursuing the Business Combination transaction that did not meet the requirement for capitalization.
(3) For the six months ended June 30, 2021 and 2020, consists of funding received under the CARES Act Provider Relief Fund.
(4) Represents labor costs with respect to laboratory employees' downtime. During the second quarter of 2020, we did not reduce the workforce in our laboratory from COVID-19. However, we suffered significantly due to the decrease in volume in Women's Health and other products. Accordingly, we have adjusted our Gross Profit to reflect the management-assessed impact from the decrease in productivity of existing laboratory employees due to COVID-19 in the second quarter of 2020.

Going Concern, Liquidity and Capital Resources

We have evaluated whether there are certain conditions and events, considered in the aggregate, that raise substantial doubt about our ability to continue as a going concern within one year after the date that the condensed financial statements are issued. Based on our recurring losses from operations incurred since inception, an expectation of continuing operating losses for the foreseeable future, and the need to raise additional capital to finance its future operations raised substantial doubt about our ability to continue as a going concern, as disclosed in Sema4's audited financial statements as of December 31, 2020, and 2019 and condensed financial statements included within CMLS's definitive proxy statement filed with the SEC on July 2, 2021.

On July 22, 2021, we completed the Business Combination with CMLS and received net cash proceeds of $510 million. Management determined that the cash proceeds received from the Business Combination provides us with sufficient liquidity to meet our obligations for at least twelve months from the date of this Report. Accordingly, management believes that its plans to improve our liquidity position have been effectively implemented and the conditions that previously raised substantial doubt about our ability to continue as a going concern have been mitigated.

Accordingly, the condensed financial statements 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.

Material Cash Requirements for Known Contractual Obligations and Commitments

The following is a description of commitments for known and reasonably likely cash requirements as of June 30, 2021 and December 31, 2020. We anticipate fulfilling such commitments with our existing cash and cash equivalents, which amounted to $26.5 million and $108.1 million as of June 30, 2021 and December 31, 2020, respectively, or through additional capital raised to finance our operations; see "—Going Concern, Liquidity and Capital Resources".

Our future minimum payments under non-cancellable operating lease agreements were $70.5 million as of June 30, 2021 and $73.3 million as of December 31, 2020. The timing of these future payments, by year, can be found in Sema4's audited financial statements in Note 8, "Commitments and Contingencies" and Sema4's unaudited condensed financial statements in Note 8, "Commitments and Contingencies," respectively.

Our future payments under capital leases were $67.8 million as of June 30, 2021. The timing of these future payments, by year, can be found in Sema4's audited financial statements in Note 8, "Commitments and Contingencies" and Sema4's unaudited condensed financial statements in Note 8, "Commitments and Contingencies," respectively.

In 2016, ISMMS received a loan funding commitment from the Connecticut Department of Economic Community Development (the "DECD"), which we refer to as the DECD Loan Agreement, to support the Genetic Sequencing Laboratory Project, which we refer to as the Project. As part of the spin-out of Sema4 from ISMMS, ISMMS assigned both the Project and the DECD Loan Agreement to us. In June of 2018, we amended the DECD Loan Agreement by increasing the total loan commitment amount to $15.5 million. During the years ended December 31, 2020 and 2018, we received $6.0 million and $4.5 million, respectively, in loan funding.

The terms of the amended DECD Loan Agreement require us to make interest-only payments through July 2023 and principal and interest payments commencing in August 2023. The final payment of principal and interest is due in July 2028. Interest payments are fixed at an annual interest rate of 2.0%. The outstanding loan balance from the DECD was $11.0 million at June 30, 2021 and December 31, 2020. The DECD may grant partial principal loan forgiveness that is contingent upon Sema4 achieving certain milestones. As of June 30, 2021, $4.5 million of principal had been forgiven due to the achievement of these milestones. The timing of these future payments, by year, can be found in Sema4's audited financial statements in Note 7, "Long-Term Debt" and Sema4's unaudited condensed financial statements in Note 7, "Long-term debt."

During the year ended December 31, 2020, we entered into a Master Loan and Security Agreement, or the Equipment Note, with a bank resulting in the receipt of $6.3 million of proceeds. The loan is fully secured with funds deposited in a bank account opened by Sema4 in the lender-designated bank. Also, during the year ended December 31, 2020, we entered into a Master Lease Agreement with a lender whereby we agreed to sell certain equipment and immediately lease it back, resulting in the receipt of $3.6 million of proceeds. Sema4 issued a letter of credit as security for this loan. More information on the terms of these financing arrangements can be found in Sema4's audited financial statements in Note 7, "Long-term debt" and Sema4's unaudited condensed financial statements in Note 7, "Long-term debt."

The terms of the Equipment Note require us to make sixty consecutive monthly payments of principal and interest at a fixed monthly amount of $0.1 million beginning in November 2020. Interest payments are fixed at an annual interest rate of 4.75%. The outstanding loan balance was $5.5 million and $6.1 million at June 30, 2021 and December 31, 2020, respectively. The timing of these future payments, by year, can be found in Sema4's audited financial statements in Note 7, "Long-Term Debt" and Sema4's unaudited condensed financial statements in Note 7, "Long-term debt," respectively.

The terms of the Master Lease Agreement require us to make sixty consecutive monthly payments of principal and interest at a fixed monthly amount of $0.1 million beginning in February 2021. Interest payments are fixed at an annual interest rate of 3.54%. The outstanding loan balance was $3.4 million and $3.6 million at June 30, 2021 and December 31, 2020, respectively. The timing of these future payments, by year, can be found Sema4's audited financial statements in Note 7, "Long-Term Debt" and Sema4's unaudited condensed financial statements in Note 7, "Long-term debt," respectively.

Cash Flows

	Six Months Ended June, 31	
	2021	**2020**
	(in thousands)	
Net cash used in operating activities	$ (67,509)	$ (46,181)
Net cash used in investing activities	(9,475)	(15,486)
Net cash (used in) provided by financing activities	(4,647)	3,684

Operating Activities

Net cash used in operating activities during the six months ended June 30, 2021 was $67.5 million, which was primarily attributable to a net loss of $236.4 million, partially offset by non-cash depreciation and amortization of $10.5 million and non-cash stock-based compensation expense of $164.4 million. The net change in our operating assets and liabilities primarily reflected a $7.5 million decrease in accounts receivable due to a significant decrease in COVID-19 tests performed during the second quarter of 2021, a $6.6 million increase in inventories driven by a higher volume of purchases to support increasing testing volumes, a $9.7 million increase in prepaid expenses and other current assets mainly driven by professional services costs directly related to the Business Combination, a $8.4 million increase in accounts payable and accrued expenses due to the timing of vendor payments of large vendors, and an $7.8 million decrease in other current liabilities mainly driven by a decline in our bonus accrual following bonus payments in March 2021 and other personnel related expenses.

Net cash used in operating activities during the six months ended June 30, 2020 was $46.2 million, which was primarily attributable to a net loss of $59.0 million, partially offset by non-cash depreciation and amortization of $5.1 million and non-cash lease expenses of $5.2 million. The net change in our operating assets and liabilities primarily reflected a $1.2 million decrease in other assets driven by a reclass out of other assets into restricted cash, a decrease in inventory of $1.3 million, a decrease in prepaid expenses and other current assets of $2.6 million and a decrease in other current liabilities of $2.9 million.

Investing Activities

Net cash used in investing activities during the six months ended June 30, 2021 was $9.5 million, which was attributable to $3.3 million in purchases of property and equipment and $6.2 million of costs related to development of internal-use software assets.

Net cash used in investing activities during the six months ended June 30, 2020 was $15.5 million, which was attributable to $13.6 million in purchases of property and equipment and $1.9 million of costs related to development of internal-use software assets.

Financing Activities

Net cash used in financing activities during the six months ended June 30, 2021 was $4.6 million, which was attributable to $2.8 million in payments for the capitalized portion of the transaction costs related to the Business Combination, $2.0 million in principal payments on our capital lease obligations and $0.8 million in principal payments on our long-term debt obligations, offset by $1.0 million cash received from stock option exercise.

Net cash provided by financing activities during the six months ended June 30, 2020 was $3.7 million, which was attributable to $6.0 million in cash proceeds from the issuance of long-term debt, partially offset by $2.3 million in principal payments on our capital lease obligations.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

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, and restricted cash consists of bank deposits and money market funds, which totaled $118.9 million and $115.0 million at December 31, 2020 and 2019, respectively, and $37.3 million at June 30, 2021. Such interest-bearing instruments carry a degree of risk; however, because our investments are primarily high-quality credit instruments with short-term in 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.

Our loans and financing obligations are recorded at amortized cost and are set at fixed interest rates. As a result, fluctuations in interest rates would not impact our financial statements. However, the fair value of our debt will generally fluctuate with movements of interest rates. Additional information on our long-term debt can be found in Sema4's audited financial statements in Note 7, "Long-Term Debt" and Sema4's unaudited condensed financial statements in Note 7, "Long-Term Debt."

The fair value of our liability-classified stock options is determined using the Black-Scholes model, which uses the risk-free interest rate as an input. A 100 basis point change in interest rates would not have a material effect on the fair value of our liability classified stock options using the Black-Scholes model.

Critical Accounting Policies and Estimates

We have prepared our financial statements in accordance with GAAP. Our preparation of these financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities and related disclosures at the date of the financial statements, as well as revenue and expense recorded during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and or other relevant assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

An accounting policy is deemed to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, if different estimates reasonably could have been used, or if changes in the estimate that are reasonably possible could materially impact the financial statements. While our significant accounting policies are described in more detail in Sema4's audited financial statements in Note 2, "Summary of Significant Accounting Policies" and Sema4's unaudited condensed financial statements in Note 2, "Summary of Significant Accounting Policies," included elsewhere in this prospectus, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

Revenue Recognition

Under ASC 606, revenue is recognized when, or as, performance obligations under the terms of a contract are satisfied, which occurs when control of the promised products or services are transferred to a customer. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring products or services to a customer. Our contracts require significant judgments in determining the transaction price and satisfying performance obligations under ASC 606.

Diagnostic test revenue

Our diagnostic test revenue contracts typically consist of a single performance obligation to deliver diagnostic testing services to the ordering facility or patient and therefore allocation of the contract transaction price is not applicable. Control over diagnostic testing services is transferred at a point in time. Specifically, we determined the customer obtains control of the promised service upon delivery of the test results.

Under ASC 606, we include the unconstrained amount of estimated variable consideration in the transaction price. The transaction price is constrained to only include the amount for which it is probable that a significant reversal of cumulative revenue recognized will not occur when underlying uncertainties or contingencies resolve. At the end of each subsequent reporting period, we re-evaluate the estimated variable consideration included in the transaction price and any related constraint and, if necessary, adjust our estimate of the overall transaction price. The process for estimating the transaction price associated with services provided to customers involves significant judgments and assumptions.

We estimate the transaction price in arrangements with third-party insurance payors based on historical collection experience, contractual provisions and insurance reimbursement policies, payor mix, and other relevant information for applicable payor portfolios. The estimates for implicit price concessions require significant judgment and are based upon management's assessment of expected net collections, business and economic conditions, historical trends, trends in federal, state and private employer health care coverage and other collection indicators.

For self-pay patients, we determine the transaction price associated with services rendered in consideration of implicit price concessions that are granted to such patients. The estimates for implicit price concessions require significant judgment and are based upon management's assessment of expected net collections, business and economic conditions, historical trends, trends in federal, state and private employer health care coverage and other collection indicators.

For institutional clients, the customer is the institution. We determine the transaction price associated with services rendered in accordance with the contractual rates established with each customer.

We monitor these accrual estimates at each reporting period based on actual cash collections in order to assess whether a revision to the estimate is required. Both the initial estimate and any subsequent revision to the estimate contain uncertainty and require the use of judgment in the estimation of the transaction price and application of the constraint for variable consideration. If actual results in the future vary from our estimates, we will adjust these estimates, which could affect revenue and earnings in the period such variances become known.

Other revenue

We also recognize revenue from collaboration service agreements with Biopharma companies and other third parties pursuant to which we provide diagnostic testing and related data aggregation reporting services. The goods and services transferred to our customers pursuant to these agreements generally comprise a single performance obligation on the basis that such goods and services are not distinct within the context of the contract. This is because the goods and services are highly interdependent and interrelated such that we would not be able to fulfill our underlying promise to our customers by transferring each good or service independently. These contracts generally include non-refundable upfront payments, which we record as contract liabilities, and variable payments based upon the achievement of certain milestones during the contract term. Milestone payments are a form of variable consideration that are included in the transaction price only when it is probable that doing so will not result in a significant reversal of cumulative revenue recognized when the uncertainty associated with the milestone is subsequently resolved.

Under ASC 606, we recognize revenue over time using an input measure based on costs incurred on the basis that this measure best reflects the pattern of transfer of control of the services to the customer. The measure of progress is developed using our best estimate of the performance period and the anticipated costs to be incurred to perform such services. The costs for any subcontracted services are included in our measure of progress used to recognize revenue.

Capitalized Internal-Use Software Costs

We capitalize certain costs related to the development of our software applications for internal use. Capitalization begins during the application development stage, once the preliminary project stage has been completed. If a project constitutes an enhancement to existing software, we assess whether the enhancement creates additional functionality to the software, thus qualifying the work incurred for capitalization. Costs incurred prior to meeting these criteria together with costs incurred for training and maintenance are expensed as incurred. Once the project is available for general release, capitalization ceases and we estimate the useful life of the asset and begin amortization. We exercise judgment in determining the point at which various projects may be capitalized, in assessing the ongoing value of the capitalized costs and in determining the estimated useful lives over which the costs are amortized. We periodically assess whether triggering events are present to review internal-use software for impairment. To the extent that we change our estimates related to internal-use software, the amount of internal-use software development costs we capitalize and amortize could change in future periods.

Stock-Based Compensation

We measure stock-based compensation expense for liability-classified stock options granted to employees, consultants and directors based on the estimated fair value of the awards and recognize compensation expense over the requisite service period for each separate vesting portion of the award as if the award was, in-substance, multiple awards. Terms of our stock options include a provision whereby we have a call option to repurchase the award for cash upon termination of employment or termination of the consulting agreement. We have concluded that it is probable we will continue to exercise our call option prior to the award holder being subject to the risks and rewards of equity ownership. As a result, stock options are classified as liabilities in the accompanying balance sheets. Additional information on our stock-based compensation can be found in Sema4's audited financial statements in Note 9, "Stock-

Based Compensation" and Sema4's unaudited condensed financial statements in Note 9, "Stock-Based Compensation."

The initial measurement of fair value and subsequent change in fair value are recognized as compensation expense over the requisite service period from grant date to settlement date for all awards that vest with a corresponding adjustment to stock-based compensation liabilities on the balance sheet. Shares of common stock issued upon settlement of an award continue to be classified as a liability and remeasured to fair value each reporting period until the shareholder bears the risks and rewards of equity ownership for a reasonable period of time, which we conclude is a period of at least six months.

We estimate the fair value of stock options using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of assumptions regarding a number of variables that are complex, subjective and generally require significant judgment to determine. Changes in the assumptions can materially affect the fair value and ultimately how much stock-based compensation expense is recognized. These assumptions include:

Expected volatility. As we do not have any trading history for our common stock, the expected volatility was estimated based on the average volatility for comparable publicly traded companies over a period equal to the expected term of stock option grants. When selecting these comparable companies, we considered the enterprise value, risk profiles, position within the industry, and whether there was sufficient historical share price information to meet the expected life of the stock-based awards. We computed historical volatility using the daily closing prices for the selected companies' common stock during the equivalent period of the calculated expected term of the stock-based awards.

Expected term. The expected term represents the period that awards are expected to be outstanding and is determined by the potential timing of a liquidity event since all awards have accelerated vesting features upon a liquidation event and we generally do not expect grantees to exercise vested options prior to a liquidation event.

Risk-free interest rate. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for bonds with maturities consistent with the expected holding periods corresponding with the expected term of the option.

Dividend yield. We have not historically paid dividends on common stock and do not anticipate paying dividends in the foreseeable future. Therefore, the expected dividend yield is zero.

Fair value of common stock. Prior to the closing of the Business Combination, the fair value of our common stock issuable upon exercise of stock options was determined by our board of directors, with input from management and independent third-party valuations, as discussed in "Common Stock Valuations" below.

The estimated forfeiture rate is not determinable due to a lack of historical and comparable data. Therefore, we account for forfeitures as they occur.

Common Stock Valuations

The estimated fair value of common stock underlying our stock options was determined at each grant date by our board of directors, with input from management, considering our most recently available third-party valuations of common stock and our board of directors' assessment of additional objective and subjective factors that it believed were relevant and factors that may have changed from the date of the most recent valuation through the end of the reporting period. All options to purchase shares of our common stock are intended to be exercisable at a price per share not less than the per-share fair value of our common stock underlying those options on the date of grant.

We determined the fair value of our common stock using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. Given the absence of a public trading market for our common stock, our common stock valuation methodologies utilize certain assumptions, including probability weighting of events, volatility, time to liquidation, a risk-free interest rate and an assumption for a discount for lack of marketability. Other considerations include:

- the prices, rights, preferences and privileges of our redeemable convertible preferred stock relative to our common stock;
- our operating and financial performance, forecasts and capital resources;
- current business conditions;
- our stage of commercialization;
- the likelihood of achieving a liquidity event for the shares of common stock issuable upon exercise of these stock options, such as an initial public offering, reverse merger SPAC transaction, or sale of Sema4, given prevailing market conditions;
- the market performance of comparable publicly traded technology companies; and
- the U.S. and global economic and capital market conditions.

In valuing our common stock for periods prior to December 31, 2020, we utilized the “backsolve” method to derive our implied enterprise value from arm’s length transactions in our redeemable convertible preferred securities assuming various timelines to liquidity via an initial public offering or sale. We then used an option-pricing model (“OPM”) to estimate the fair value of our common stock based on the calculated enterprise value under each liquidity scenario. The OPM treats the rights of the holders of redeemable convertible preferred stock and common stock as equivalent to that of call options on any value of the enterprise above certain break points of value based upon the liquidation preferences of the holders of preferred stock, as well as their rights to participation and conversion. Based on the timing and nature of an assumed liquidity event in each scenario, a discount for lack of marketability was applied to each scenario. We then probability weighted the value of each expected outcome to arrive at an estimate of fair value per share of common stock.

In valuing our common stock prior to the closing of the Business Combination, including as of December 31, 2020, we estimated the fair value of the enterprise using the probability-weighted expected return method (“PWERM”), which is a highly complex and subjective valuation methodology. Under a PWERM, the fair market value of the common stock is estimated based upon the discounted expected future values for the enterprise assuming various future outcomes. Based on the timing and nature of an assumed liquidity event in each scenario, a discount for lack of marketability was applied to each scenario. We then probability-weighted the value of each expected outcome to arrive at an estimate of fair value per share of common stock.

For valuations after the closing of the Business Combination, our board of directors determines the fair value of each share of common stock based on the closing price of our common stock on the date of grant or other relevant determination date, as reported on Nasdaq.

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. We have elected to use this extended transition period and, as a result, our financial statements may not be comparable to companies that comply with public company effective dates. We also intend to rely on other exemptions provided by the JOBS Act, including not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act.

Following the completion of the Business Combination, we will remain an emerging growth company until the earliest of (1) September 1, 2025, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

Recent Accounting Pronouncements

Additional information on recent accounting pronouncements can be found in Sema4's audited financial statements in Note 2, "Summary of Significant Accounting Policies" and Sema4's unaudited condensed financial statements in Note 2, "Summary of Significant Accounting Policies."

Internal Controls

In connection with the preparation of Sema4's audited financial statements included in CMLS's definitive proxy statement filed with the SEC on July 2, 2021, we identified material weaknesses in our controls, which existed as of December 31, 2020. Our management is actively engaged and committed to taking the steps necessary to remediate the control deficiencies that constituted the material weaknesses. During 2021, we made the following enhancements to our control environment:

- In May 2021, we hired a permanent Chief Accounting Officer with substantial technical accounting and internal controls experience, whose responsibilities include working with our Chief Financial Officer, existing employees and third-party consultants to improve the design, implementation, execution and supervision of our controls.

- We added accounting and information technology employees with appropriate experience, certification, education and training to the organization to strengthen our internal accounting team, to provide oversight, structure and reporting lines, and to provide additional review over our disclosures. This includes hiring a Corporate Controller, whose primary responsibilities include working with third-party consultants to improve the design, implementation, execution, and supervision of our controls. We expect to continue to evaluate our needs for additional personnel. We expect to provide enhanced training to existing and new employees in order to enhance the level of communication and understanding of controls with key individuals that provide key information and perform key roles within our financial accounting and reporting group.

- We engaged outside consultants to assist in the design, implementation, and documentation of internal controls that address the relevant risks, are properly designed, and provide for appropriate evidence of performance of the internal controls; and

- We engaged outside consultants to assist us in the evaluation of a new Enterprise Resource Planning ("ERP") system in order to mitigate the internal control gaps and limitations that cannot be addressed by the current ERP system around segregation of duties, and to enhance the information technology general controls environment.

Our remediation activities are continuing during 2021. In addition to the above actions, we expect to engage in additional activities, including, but not limited to:

- Hiring more technical accounting resources to enhance our control environment;

- Until we have sufficient technical accounting resources, engaging external consultants to provide support and to assist us in our evaluation of more complex applications of GAAP, and to assist us with documenting and assessing our accounting policies and procedures;

- Implementing business process-level controls across all significant accounts and information technology general controls across all relevant domains. This will include providing training for control owners that will present expectations as it relates to the control design, execution and monitoring of such controls, including enhancements to the documentation to evidence the execution of the controls; and

- Implementing improvements to our ERP system to enhance the accuracy of our financial records, enable the enforcement of systematic segregation of duties, and to improve our information technology general controls environment.

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.

Item 9.01. Financial Statement and Exhibits.

(a) Financial statements of businesses acquired.

In accordance with Item 9.01(a), Sema4's unaudited financial statements as of and for the three and six months ended June 30, 2021 and 2020, is filed as Exhibit 99.3 to this Report and is incorporated herein by reference.

(b) Pro forma financial information.

The unaudited pro forma condensed combined financial information of CMLS and Sema4 as of and for the six months ended June 30, 2021 and for the year ended December 31, 2020 is filed as Exhibit 99.2 and is incorporated herein by reference.

(d) Exhibits.

Exhibit Number	Description	Incorporated by Reference		
		Form	Exhibit	Filing Date
2.1*	Agreement and Plan of Merger, dated February 9, 2021, by and among CMLS, Merger Sub and Legacy Sema4, as amended by Amendment to Agreement and Plan of Merger dated May 3, 2021.	DEFM14A	Annex A	07/02/2021
3.1	Third Amended and Restated Certificate of Incorporation of Sema4 Holdings Corp. (#)			
3.2	Restated Bylaws of Sema4 Holdings Corp. (#)			
4.1	Specimen Class A Common Stock Certificate.	S-1/A	4.2	08/24/2020
4.2	Specimen Warrant Certificate.	S-1/A	4.3	08/24/2020
4.3	Warrant Agreement, dated as of September 1, 2020, by and between CM Life Sciences, Inc. and Continental Stock Transfer & Trust Company, as warrant agent.	8-K	10.1	09/04/2020
10.1	Lockup Agreement, dated as of February 9, 2021, by and among the Company and the stockholder parties identified therein.	8-K	10.2	02/11/2021
10.2	Amended and Restated Registration Rights Agreement, dated as of July 22, 2021, by and among the Company, certain equity holders of the Company named therein and certain equity holders of Sema4 named therein. (#)			
10.3	Subscription Agreement, dated as of February 9, 2021, by and among the Company and the subscriber parties thereto.	8-K	10.1	02/11/2021
10.4	Form of Director and Officer Indemnification Agreement. (#)			
10.5	2021 Equity Incentive Award Plan. (#)			
10.6	Form of Stock Option Agreement under the 2021 Incentive Award Plan. (#)			

10.7	Form of RSU Agreement under the 2021 Incentive Award Plan. (#)
10.8	Form of Earn-Out RSU Agreement. (#)
10.9	2021 Employee Stock Purchase Plan. (#)
10.10	Amended and Restated Employment of Agreement of Eric Schadt. (#)
10.11	Employment Agreement of Isaac Ro. (#)
10.12	Employment Agreement of Dan Clark. (#)
10.13	Employment Agreement of James Coffin. (#)
10.14	Employment Agreement of Anthony Prentice. (#)
10.15	Employment Agreement of Kareem Saad. (#)
10.16	Employment Agreement of Karen White. (#)
10.17	Sub-Sublease, dated as of June 6, 2017, by and between Icahn School of Medicine at Mount Sinai and the Company, as amended July 31, 2019. (#)
10.18	Sublease Agreement, dated as of November 8, 2019, by and between Marriott International, Inc. and the Company. (#)
10.19	Sublease, dated as of June 1, 2017, by and between Icahn School of Medicine at Mount Sinai and the Company, as amended December 22, 2017. (#)
10.20	Sublease, dated as of April 23, 2019, by and between Icahn School of Medicine at Mount Sinai and the Company. (#)
10.21	Lease Agreement, dated as of January 31, 2020, by and between 1 Commercial Street Associates, LLC and the Company. (#)
10.22**	Master Services Agreement, dated as of April 2, 2018, by and among the Company, Icahn School of Medicine at Mount Sinai, The Mount Sinai Hospital, and the parties thereto, as amended July 31, 2019. (#)
10.23**	Master Services Agreement, dated as of May 10, 2018, by and between the Company and Icahn School of Medicine at Mount Sinai, as amended July 31, 2019. (#)
10.24**	Data Structuring and Curation Agreement, dated as of August 1, 2019, by and between Icahn School of Medicine at Mount Sinai and the Company, as amended March 11, 2020. (#)
10.25**	BioMe Biospecimen and Data Access Agreement, dated as of July 19, 2019, by and between Icahn School of Medicine at Mount Sinai and the Company. (#)
10.26**	Non-Exclusive Patent License Agreement, dated as of June 1, 2017, by and between the Company and Icahn School of Medicine at Mount Sinai. (#)

10.27**	Supply Agreement, dated as of June 20, 2014, by and between the Company and Illumina, Inc., and amendments thereto. (#)
16.1	Letter from Withum to the U.S. Securities and Exchange Commission dated July 28, 2021. (#)
21.1	Subsidiaries of the Company. (#)
99.1	Press release dated July 22, 2021. (#)
99.2	Unaudited pro forma condensed combined financial information of the Company as of and for the six months ended June 30, 2021 and for the year ended December 30, 2020.
99.3	Sema4 Unaudited Financial Statements as of and for the six months ended June 30, 2021

* Certain of the exhibits and schedules to this Exhibit have been omitted in accordance with Regulation S-K Item 601(a)(5). The Company agrees to furnish a copy of all omitted exhibits and schedules to the SEC upon its request.
** The Company has omitted portions of the exhibit as permitted under Regulation S-K Item 601(b)(10).
(#) Previously filed with the Original 8-K on July 28, 2021.

SIGNATURES

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

		Sema4 Holdings Corp.	
Date:	August 16, 2021	By:	/s/ Eric Schadt
		Name:	Eric Schadt
		Title:	Chief Executive Officer

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

Defined terms included below have the same meaning as terms defined and included elsewhere in the Current Report on Form 8-K (the "Report") to which this Exhibit 99.2 relates and, if not defined in the Report, the Proxy Statement. Unless otherwise indicated or the context otherwise requires, references in this Exhibit 99.2 to (i) "we," "us," "our," "Sema4 Holdings" and the "Company" refer to Sema4 Holdings Corp., a Delaware corporation (f/k/a CM Life Sciences, Inc., a Delaware corporation), and its consolidated subsidiary following the Closing, (ii) "CMLS" refer to CM Life Sciences, Inc., a Delaware corporation, prior to the Closing, and (iii) "Sema4" refer to Mount Sinai Genomics, Inc. d/b/a Sema4, a Delaware corporation, prior to the Closing.

The following unaudited pro forma condensed combined balance sheet as of June 30, 2021 combines the unaudited historical condensed balance sheet of CMLS as of June 30, 2021 with the unaudited historical condensed balance sheet of Sema4 as of June 30, 2021, giving effect to the Business Combination and the PIPE Investment as if they had been consummated as of that date.

The following unaudited pro forma condensed combined statements of operations for the six months ended June 30, 2021 and for the year ended December 31, 2020 combine the historical statements of operations of CMLS and Sema4 for such periods, giving effect to the Business Combination and the PIPE Investment as if they had been consummated on January 1, 2020, the beginning of the earliest period presented.

The unaudited pro forma condensed combined financial statements have been derived from and should be read in conjunction with:

- the accompanying notes to the unaudited pro forma condensed combined financial statements;
- the (i) audited historical financial statements of CMLS as of December 31, 2020 and for the period from July 10, 2020 (inception) through December 31, 2020 and (ii) unaudited historical condensed financial statements of CMLS as of and for the six months ended June 30, 2021 and the related notes, in each case, incorporated by reference in the Report;
- the (i) audited historical financial statements of Sema4 as of and for the year ended December 31, 2020 and (ii) unaudited historical condensed financial statements of Sema4 as of and for the six months ended June 30, 2021 and the related notes, in each case, incorporated by reference in the Report; and
- the sections of the Proxy Statement entitled "*Management's Discussion and Analysis of Financial Condition and Results of Operations of CMLS*" and "*Management's Discussion and Analysis of Financial Condition and Results of Operation of Sema4*" and the other financial information included elsewhere and incorporated by reference in the Report.

The unaudited pro forma condensed combined financial statements are for illustrative purposes only and are not necessarily indicative of what the actual results of operations and financial position would have been had the Business Combination and the PIPE Investment taken place on the dates indicated, nor are they indicative of the future consolidated results of operations or financial position of Sema4 Holdings.

UNAUDITED PRO FORMA CONDENSED COMBINED BALANCE SHEET
AS OF JUNE 30, 2021
(in thousands)

	Historical		Actual Redemptions		
	5(A) CMLS	5(B) Sema4	Transaction Accounting Adjustments		Pro Forma Balance Sheet
ASSETS					
Current assets:					
Cash and cash equivalents	$ 168	$ 26,501	$ 507,953	5(a)	$ 534,622
Accounts receivable	—	24,568	—		24,568
Due from related parties	—	437	—		437
Inventory	—	29,128	—		29,128
Prepaid expenses and other current assets	228	18,378	(8,579)	5(b)	10,027
Total current assets	396	99,012	499,374		598,782
Property and equipment, net	—	62,097	—		62,097
Restricted cash	—	10,828	(9,928)		900
Other assets	—	3,596	—		3,596
Cash and marketable securities held in trust account	442,786	—	(442,786)	5(c)	—
Total assets	$ 443,182	$ 175,533	$ 46,660		$ 665,375
LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK					
Current liabilities:					
Accounts payable and accrued expenses	$ 2,245	$ 43,650	$ (1,413)	5(d)	$ 44,482
Due to related parties	—	1,278	—		1,278
Current contract liabilities	—	1,341	—		1,341
Other current liabilities	—	24,764	(1,872)	5(e)	22,892
Total current liabilities	2,245	71,033	(3,285)		69,993
Long-term debt, net of current portion	—	18,028	(6,869)	5(e)	11,159
Stock-based compensation liabilities	—	295,049	—		295,049
Other liabilities	—	21,907	—		21,907
Earn-out liability	—	—	185,988	5(f)	185,988
Warrant liability	112,683	—	—		112,683
Deferred underwriting fee payable	15,496	—	(15,496)	5(g)	—
Total liabilities	130,424	406,017	160,338		696,779
COMMITMENTS AND CONTINGENCIES					
Redeemable convertible preferred stock:					
Sema4 Series A-1 redeemable convertible preferred stock, $0.00001 par value	—	51,811	(51,811)	5(h)	—
Sema4 Series A-2 redeemable convertible preferred stock, $0.00001 par value	—	46,480	(46,480)	5(h)	—
Sema4 Series B redeemable convertible preferred stock, $0.00001 par value	—	118,824	(118,824)	5(h)	—

Sema4 Series C redeemable convertible preferred stock, $0.00001 par value	—	117,324	(117,324)	5(h)	—
Redeemable convertible preferred stock	—	334,439	(334,439)	5(h)	—
CMLS Class A Common stock subject to possible redemption	307,758	—	(307,758)	5(i)	—
STOCKHOLDERS' DEFICIT					
Sema4 Class A common stock, $0.00001 par value	—	—	—		—
Sema4 Class B convertible common stock, $0.00001 par value	—	—	—		—
CMLS Preferred stock, $0.0001 par value	—	—	—		—
CMLS Class A common stock, $0.0001 par value	1	—	23	5(j)	24
CMLS Class B common stock, $0.0001 par value	1	—	(1)	5(j)	—
Additional paid-in capital	90,368	1,483	452,340	5(j)	544,191
Accumulated deficit	(85,370)	(566,406)	76,157	5(j)	(575,619)
Total stockholders' equity (deficit)	5,000	(564,923)	528,519	5(j)	(31,404)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$ 443,182	$ 175,533	$ 46,660		$ 665,375

See accompanying notes to the unaudited pro forma condensed combined financial information.

UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS

FOR THE SIX MONTHS ENDED JUNE 30, 2021

(in thousands, except share and per share amounts)

	Historical		Actual Redemptions			
	6(A) CMLS	6(B) Sema4	Transaction Accounting Adjustments		Pro Forma Statement of Operations	
Revenue:						
Diagnostic test revenue	$ —	$ 107,563	$ —		$ 107,563	
Other revenue	—	3,653	—		3,653	
Total revenue	—	111,216	—		111,216	
Cost of services	—	121,443	—		121,443	
Total gross profit	—	(10,227)	—		(10,227)	
Operating expenses:						
Research and development	—	65,085	—		65,085	
Selling and marketing	—	47,816	—		47,816	
General and administrative	3,123	114,711	—		117,834	
Related party expenses	—	2,685	—		2,685	
Loss from operations	(3,123)	(240,524)	—		(243,647)	
Other income (expense):						
Interest income	—	30	—		30	
Interest expense	—	(1,445)	—		(1,445)	
Other income, net	—	5,584	—		5,584	
Interest earned on marketable securities held in Trust Account	22	—	(22)	6(c)	—	
Change in fair value of warrant liability	(42,361)	—	—		(42,361)	
Total other income, net	(42,339)	4,169	(22)		(38,192)	
Net loss before income taxes	(45,462)	(236,355)	(22)		(281,839)	
Provision for income taxes	—	—	—		—	
Net loss	$ (45,462)	$ (236,355)	$ (22)		$ (281,839)	
Weighted average shares outstanding, basic and diluted	11,068,750	4			240,190,402	6(d)
Basic and diluted net loss per share	$ (4.11)	$ (317,750)			$ (1.17)	6(d)

See accompanying notes to the unaudited pro forma condensed combined financial information.

UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS

FOR THE YEAR ENDED DECEMBER 31, 2020

(in thousands, except share and per share amounts)

	Historical		Redemptions			
	6(C) CMLS	6(D) Sema4	Transaction Accounting Adjustments		Pro Forma Statement of Operations	
Revenue:						
Diagnostic test revenue	$ —	$ 175,351	$ —		$ 175,351	
Other revenue	—	3,971	—		3,971	
Total revenue	—	179,322	—		179,322	
Cost of services	—	184,648	—		184,648	
Total gross profit	—	(5,326)	—		(5,326)	
Operating expenses:						
Research and development	—	72,700	—		72,700	
Selling and marketing	—	53,831	—		53,831	
General and administrative	206	100,742	8,242	6(a)	109,190	
Related party expenses	—	9,395	—		9,395	
Total operating expenses	206	236,668	8,242		245,116	
Loss from operations	(206)	(241,994)	(8,242)		(250,442)	
Other income (expense):						
Interest income	—	506	—		506	
Interest expense	—	(2,474)	(312)	6(b)	(2,786)	
Other income, net	—	2,622	—		2,622	
Interest earned on marketable securities held in Trust Account	14	—	(14)	6(c)	—	
Change in fair value of warrant liability	(38,511)	—	—		(38,511)	
Transaction costs	(1,205)	—	—		(1,205)	
Total other income, net	(39,702)	654	(326)		(39,374)	
Net loss before income taxes	$ (39,908)	$ (241,340)	$ (8,568)		$ (289,816)	
Provision for income taxes	—	—	—		—	
Net loss	$ (39,908)	$ (241,340)	$ (8,568)		$ (289,816)	
Weighted average shares outstanding, basic and diluted	10,633,062	1			240,190,402	6(d)
Basic and diluted net loss per share	$ (3.75)	$ (5,824,000.00)			$ (1.21)	6(d)

See accompanying notes to the unaudited pro forma condensed combined financial information.

NOTES TO UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

1. Description of the Transactions

The Business Combination

On February 9, 2021, CMLS and its wholly owned subsidiary, S-IV Sub, Inc. ("*Merger Sub*"), entered into an Agreement and Plan of Merger with Sema4 (the "*Merger Agreement*"). Pursuant to the Merger Agreement, Merger Sub merged with and into Sema4, with Sema4 surviving the merger as a wholly owned subsidiary of CMLS. Upon the consummation of the transactions contemplated by the Merger Agreement (the "*Business Combination*"), CMLS changed its name to Sema4 Holdings Corp.

Subject to the terms and conditions of the Merger Agreement, each share of Sema4 Class B common stock issued and outstanding immediately prior to the effective time was converted into 1/100th of a share of Sema4 Class A common stock as set forth in the Merger Agreement. Immediately thereafter, each share of Sema4 Common Stock and Sema4 Preferred Stock (other than Excluded Shares and Dissenting Shares (each as defined in the Merger Agreement)) issued and outstanding immediately prior to the effective time was cancelled and automatically deemed for all purposes to represent the right to receive a portion of the merger consideration, with each holder of Sema4 Common Stock or Sema4 Preferred Stock (each, a "*Sema4 Stockholder*") receiving (collectively, clauses (i) through (iii), the "*merger consideration*") (i) its pro rata share of the Closing Available Cash (as defined in the Merger Agreement) if such Sema4 Stockholder made an election to receive cash, and, if so elected, such Sema4 Stockholder's pro rata share excess amount of any closing available excess cash, provided that in no event would the Sema4 Stockholder's cash payment exceed an amount equal to the product of such Sema4 Stockholder's total outstanding shares multiplied by the Per Share Amount (as defined in the Proxy Statement); (ii) a number of shares of Company Class A common stock equal to the quotient of: (A)(1) the product of such Sema4 Stockholder's total outstanding shares multiplied by the Per Share Amount minus (2) such Sema4 Stockholder's stockholder cash payment amount divided by (B) $10.00; and (iii) its pro rata share of any earn out shares to which such Sema4 Stockholder is entitled pursuant to the terms of the Merger Agreement (the "*Earnout*"), including the Earn Out RSUs (as defined in the Merger Agreement), which Earn Out RSUs are subject to vesting and will not be legally issued and outstanding shares of Company Class A common stock at the closing of the Business Combination (the "*Closing*"), in each case of clauses (i), (ii) and (iii), without interest, upon surrender of stock certificates representing all of such Sema4 Stockholder's Sema4 Common Stock and Sema4 Preferred Stock and delivery of the other documents required pursuant to the Merger Agreement. As of the effective time, each Sema4 Stockholder ceased to have any other rights in and to Sema4 securities and each certificate relating to ownership of shares of Sema4 Common Stock and Sema4 Preferred Stock (other than Excluded Shares) represented the right to receive the applicable portion of the merger consideration.

Following the Closing, within five Business Days (as defined in the Merger Agreement) after the occurrence of a Triggering Event, the Company shall issue or cause to be issued to the Sema4 Stockholders (other than holders of Dissenting Shares and Excluded Shares) and the Earn-Out Service Providers (as defined in the Merger Agreement), the following shares of Company Class A common stock (which shall be equitably adjusted for stock splits, reverse stock splits, stock dividends, reorganizations, recapitalizations, reclassifications, combination, exchange of shares or other like change or transaction with respect to Company Class A common stock occurring on or after the Closing, the "*Earn-Out Shares*"), upon the terms and subject to the conditions set forth in the Merger Agreement and other related agreements: (i) upon the occurrence of Triggering Event I (as defined in the Merger Agreement), a one-time issuance of a number of Earn-Out Shares equal to 3.66% of the Earn-Out Total Outstanding Shares (as defined in the Merger Agreement); (ii) upon the occurrence of Triggering Event II (as defined in the Merger Agreement), a one-time issuance of a number of Earn-Out Shares equal to 3.67% of the Earn-Out Total Outstanding Shares; and (iii) upon the occurrence of Triggering Event III (as defined in the Merger Agreement), a one-time issuance of a number of Earn-Out Shares equal to 3.67% of the Earn-Out Total Outstanding Shares. Upon the last day of any calendar year, the Company shall issue or cause to be issued to each Sema4 Stockholder (other than holders of Dissenting Shares) and Earn-Out Service Provider (in accordance with its respective Earn-Out Pro Rata Share and, in the case of the Earn-Out Service Providers, in accordance with the terms of the applicable Earn-Out Award Agreement (as defined in the Merger Agreement)) the Earn-Out Shares that (i) are in the Forfeiture Pool (as defined in the Merger

Agreement) as in effect as of such date and (ii) would have been issuable to Sema4 Stockholders pursuant to the Merger Agreement as a result of the occurrence of a Triggering Event had they not been made subject to an award of Earn Out RSUs.

Sema4 Stockholders and the Earn-Out Service Providers shall be entitled to receive Earn-Out Shares upon each Triggering Event, provided, however that each Triggering Event may only occur once, if at all, and in no event shall the Sema4 Stockholders and Earn-Out Service Providers, in the aggregate, be entitled to receive an aggregate number of Earn-Out Shares equal to more than 11% of the Earn-Out Total Outstanding Shares. Earn-Out Shares will be issued from the Forfeiture Pool only if the applicable Triggering Event occurs.

The Earn-Out Shares issuable to Sema4 Stockholders are accounted for as contingent consideration in accordance with ASC 805, *Business Combinations*. The contingent consideration is not considered indexed to the Company's own stock and is therefore classified as a liability in the unaudited pro forma condensed combined balance sheet and will be remeasured to fair value at each reporting date (see Note 5(c)). The Earn-Out Shares issuable to Earn-Out Service Providers are accounted for as equity-classified, share-based compensation in accordance with ASC 718, *Compensation-Stock Compensation*, as the shares are subject to additional vesting conditions and continued employment.

The PIPE Investment

On February 9, 2021, concurrently with the execution of the Merger Agreement, CMLS entered into subscription agreements (collectively, the "Subscription Agreements") with certain investors (collectively, the "PIPE Investors" which include certain existing Sema4 equity holders), pursuant to which the PIPE Investors have collectively subscribed for 35,000,000 shares of Company Class A common stock for an aggregate purchase price equal to $350,000,000 (the "PIPE Investment"). The PIPE Investment was consummated immediately prior to the closing of the Business Combination.

2. Basis of Presentation

The unaudited pro forma condensed combined financial statements were prepared in accordance with Article 11 of SEC Regulation S-X as amended by the final rule, Release No. 33-10786 "Amendments to Financial Disclosures about Acquired and Disposed Businesses." Release No. 33-10786 replaces the existing pro forma adjustment criteria with simplified requirements to depict the accounting for the transaction ("Transaction Accounting Adjustments") and present the reasonably estimable synergies and other transaction effects that have occurred or reasonably expected to occur ("Management's Adjustments"). The Company has elected not to present Management's Adjustments and will only be presenting Transaction Accounting Adjustments in the unaudited pro forma condensed combined financial statements. The adjustments presented in the unaudited pro forma condensed combined financial statements have been identified and presented to provide relevant information necessary for an understanding of Sema4 Holdings upon consummation of the Business Combination and the PIPE Investment.

The unaudited pro forma condensed combined balance sheet as of June 30, 2021 gives effect to the Business Combination and the PIPE Investment as if they occurred on June 30, 2021. The unaudited pro forma condensed combined statements of operations for the six months ended June 30, 2021 and for the year ended December 31, 2020 give effect to the Business Combination and the PIPE Investment as if they occurred on January 1, 2020, the beginning of the earliest period presented.

The pro forma adjustments reflecting the consummation of the Business Combination and the PIPE Investment are based on certain currently available information and certain assumptions and methodologies that the Company believes are reasonable under the circumstances. The Company believes that its assumptions and methodologies provide a reasonable basis for presenting all of the significant effects of the Business Combination and the PIPE Investment based on information available to management at this time and that the pro forma adjustments give appropriate effect to those assumptions and are properly applied in the unaudited pro forma condensed combined financial information.

The unaudited pro forma condensed combined financial statements do not give effect to any anticipated synergies, operating efficiencies, tax savings, or cost savings that may be associated with the Business Combination.

CMLS and Sema4 had not had any historical relationship prior to the Business Combination. Accordingly, no pro forma adjustments were required to eliminate activities between the companies.

The unaudited pro forma condensed combined financial information has been prepared using actual redemptions of 10,188 shares of Company Class A common stock for aggregate redemption payments of $0.1 million out of the trust account on the closing date of the Business Combination. No other shares of Company common stock were subject to redemption. Additionally, no shares of Class B common stock were forfeited by the Sponsor as a result of the redemptions in accordance with the Forfeiture Agreement (as defined in the Proxy Statement). Sema4 equity holders received $230.7 million of merger consideration in cash at Closing.

These unaudited pro forma condensed combined financial statements and related notes have been derived from and should be read in conjunction with:

- the (i) audited historical financial statements of CMLS as of December 31, 2020 and for the period from July 10, 2020 (inception) through December 31, 2020 and (ii) unaudited historical condensed financial statements of CMLS as of and for the six months ended June 30, 2021 and the related notes, in each case, incorporated by reference in the Report;

- the (i) audited historical financial statements of Sema4 as of and for the year ended December 31, 2020 and (ii) unaudited historical condensed financial statements of Sema4 as of and for the six months ended June 30, 2021 and the related notes, in each case, incorporated by reference in the Report; and

- the sections of the Proxy Statement entitled "*Management's Discussion and Analysis of Financial Condition and Results of Operations of CMLS*" and "*Management's Discussion and Analysis of Financial Condition and Results of Operation of Sema4*" and the other financial information included elsewhere and incorporated by reference in the Report.

The unaudited pro forma condensed combined financial statements are for illustrative purposes only and are not necessarily indicative of what the actual results of operations and financial position would have been had the Business Combination and the PIPE Investment taken place on the dates indicated, nor are they indicative of the future consolidated results of operations or financial position of Sema4 Holdings.

3. Accounting for the Business Combination

The Business Combination will be accounted for as a reverse recapitalization, in accordance with GAAP. Under this method of accounting, although the Company issued shares for outstanding equity interests of Sema4 in the Business Combination, the Company will be treated as the "acquired" company for financial reporting purposes. Accordingly, the Business Combination will be treated as the equivalent of Sema4 issuing stock for the net assets of the Company, accompanied by a recapitalization. The net assets of the Company will be stated at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Business Combination will be those of Sema4.

Sema4 has been determined to be the accounting acquirer based on the evaluation of the following facts and circumstances:

- The former owners of Sema4 hold the largest portion of voting rights in Sema4 Holdings;

- Sema4 has the right to appoint a majority of the directors in Sema4 Holdings;

- Sema4's existing senior management team will comprise senior management of Sema4 Holdings;

- The operations of Sema4 Holdings represent the operations of Sema4;

- Sema4 Holdings assumed Sema4's name and headquarters.

4.Capitalization

The following summarizes the pro forma ownership of Class A common stock of the Company following the Business Combination and the PIPE Investment:

	Redemptions	
Equity Capitalization Summary	**Shares**	**%**
Sema4 Equity Holders[(1)]	155,856,840	64.9%
CMLS Public Stockholders[(2)]	44,264,812	18.4%
CMLS Sponsor[(3)]	11,068,750	4.6%
New PIPE Investors[(4)]	29,000,000	12.1%
Total Class A common stock	240,190,402	100.0%

(1) Includes stock consideration of 149,856,840 shares of Class A common stock and cash consideration of $230.7 million received by Sema4 equity holders in connection with the Business Combination, as well as 6,000,000 shares of Class A common stock purchased by existing Sema4 equity holders in connection with the PIPE Investment.
(2) Reflects redemptions of 10,188 shares of Class A common stock of the Company for aggregate redemption payments of $0.1 million using a per-share redemption price of $10.00.
(3) Due to the minimal redemptions by public stockholders, no Sponsor shares of Class B common stock were forfeited pursuant to the Forfeiture Agreement.
(4) Reflects the consummation of the PIPE Investment for aggregate proceeds of $350.0 million in connection with the issuance of 35,000,000 shares of Class A common stock, with 29,000,000 shares purchased by new PIPE Investors and 6,000,000 shares purchased by existing Sema4 equity holders as noted in (1) above. The shares purchased by new PIPE Investors includes 9,500,000 shares purchased by funds that are advised by affiliates of the Sponsor.

5. Adjustments to Unaudited Pro Forma Condensed Combined Balance Sheet as of June 30, 2021

The pro forma notes and adjustments are as follows:

Pro forma notes

(A) Derived from the unaudited condensed balance sheet of CMLS as of June 30, 2021.

(B) Derived from the unaudited condensed balance sheet of Sema4 as of June 30, 2021.

Pro forma adjustments

(a) To reflect the net change in cash and cash equivalents as a result of extinguishment of certain of our long-term debt obligations occurred prior to the Business Combination and other proceeds/payments occurred in connection with the Business Combination and the PIPE Investment as follows (in thousands):

Release of Trust Account	$	442,786	5(c)
Proceeds from PIPE Investment		350,000	5(j)
Release of restricted cash upon long-term debt payments		9,928	5(e)
Payment of cash consideration		(230,665)	5(j)
Payment of transaction expenses		(35,649)	5(j)
Payment of CMLS deferred underwriting fee payable		(15,496)	5(g)
Settlement of Sema4 stock appreciation rights		(3,795)	5(j)
Repayment of Sema4 long-term debt		(8,741)	5(e)
Payment of early-payment penalties on Sema4 long-term debt		(313)	5(j)
Redemptions by public stockholders		(102)	5(j)
Cash and cash equivalents	$	507,953	

(b) To reflect the reclassification of deferred transaction costs from other assets to additional paid-in capital in connection with the consummation of the reverse recapitalization (see Note 5(j)).

(c) To reflect the release of $442.8 million of cash and marketable securities from the Trust Account (see Note 5(b)).

(d) To reflect the release of accrued transaction expenses paid upon Closing (see Note 5(j)).

(e) To reflect the repayment of $9.1 million of Sema4's long-term debt, including $1.9 million classified as current and $6.9 million classified as non-current, as well as interest and early-payment penalties of $0.3 million. Restricted cash was also released and reclassed into Cash upon the payments. (see Note 5(a) and Note 5(j)).

(f) To record an earn-out liability for the estimated fair value of the Earn-Out Shares to be issued to Sema4 equity holders upon the achievement of the Triggering Events, assuming no Earn-Out Forfeitures (as defined in the Merger Agreement) by Earn-Out Service Providers (see Note 5(j)).

(g) To reflect the settlement of $15.5 million of deferred underwriting fees incurred during CMLS's IPO that are contractually due upon completion of the Business Combination (see Note 5(a)).

(h) To reflect the exchange of $334.4 million of Sema4's redeemable convertible preferred stock as a result of the Business Combination (see Note 5(j)).

(i) To reflect the redemption of 10,188 shares of Class A common stock of for aggregate redemption payments of $0.1 million and the transfer of $294.7 million to permanent equity upon consummation of the Business Combination as no other shares of Class A common stock remain subject to redemption (see Notes 5(a) and 5(j)).

(j) To reflect the recapitalization of Sema4 Holdings through the exchange of all of the outstanding share capital of Sema4 for Class A common stock of the Company and the following equity transactions (in thousands):

Exchange of Sema4 redeemable convertible preferred stock	$	334,439	5(h)
Reclassification of CMLS common stock subject to possible redemption		307,758	5(i)
Proceeds from PIPE Investment		350,000	5(a)
Payment of cash consideration		(230,665)	5(a)
Payment of transaction expenses		(42,815)	5(a)
Earn-out liability		(185,988)	5(f)
Settlement of Sema4 stock appreciation rights		(3,795)	5(a)
Payment of early-payment penalties on Sema4 long-term debt		(313)	5(a)
Redemptions by public stockholders		(102)	5(a)
Total stockholders' equity	$	528,519	

6. Adjustments to Unaudited Pro Forma Condensed Combined Statements of Operations for the Six months Ended June 30, 2021 and for the Year Ended December 31, 2020

The pro forma notes and adjustments are as follows:

Pro forma notes

(A) Derived from the unaudited condensed statement of operations of CMLS for the six months ended June 30, 2021.

(B) Derived from the unaudited condensed statement of operations of Sema4 for the six months ended June 30, 2021.

(C) Derived from the audited statement of operations of CMLS for the period from July 10, 2020 (inception) through December 31, 2020.

(D) Derived from the audited statement of operations of Sema4 for the year ended December 31, 2020.

Pro forma adjustments

(a) To reflect transaction costs incurred of $5.1 million that do not qualify for capitalization. The recognition of $3.8 million of unrecognized compensation expense related to the cash out of Sema4 stock appreciation rights.

(b) To recognize the payment of early-payment penalties on Sema4's long-term debt to be repaid upon closing of the Business Combination.

(c) To eliminate interest income earned on the Trust Account which will be released upon closing of the Business Combination.

(d) The pro forma basic and diluted earnings per share amounts presented in the unaudited pro forma condensed combined statements of operations are based upon the number of Company shares outstanding at the closing of the Business Combination and the PIPE Investment, assuming the Business Combination and the PIPE Investment occurred on January 1, 2020. As the unaudited pro forma condensed combined statements of operations are in a loss position, anti-dilutive instruments were not included in the calculation of diluted weighted average number of shares of common stock outstanding.

Exhibit 99.3

Mount Sinai Genomics, Inc.
Condensed Balance Sheets
(in thousands, except share amounts)

	June 30, 2021 (unaudited)	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 26,501	$ 108,132
Accounts receivable	24,568	32,044
Due from related parties	437	289
Inventory	29,128	24,962
Prepaid expenses and other current assets	18,378	8,681
Total current assets	$ 99,012	$ 174,108
Property and equipment, net	62,097	63,110
Restricted cash	10,828	10,828
Other assets	3,596	3,596
Total assets	$ 175,533	$ 251,642
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable and accrued expenses	$ 43,650	$ 38,591
Due to related parties	1,278	1,425
Current contract liabilities	1,341	1,783
Other current liabilities	24,764	31,643
Total current liabilities	71,033	73,442
Long-term debt, net of current portion	18,028	18,971
Stock-based compensation liabilities	295,049	131,989
Other liabilities	21,907	22,852
Total liabilities	406,017	247,254
Commitments and contingencies (Note 8)		
Redeemable convertible preferred stock:		
Series A-1 redeemable convertible preferred stock, $0.00001 par value: 447,373 shares authorized, issued and outstanding at June 30, 2021 and December 31, 2020; aggregate liquidation preference of $55,000 at June 30, 2021 and December 31, 2020	51,811	51,811
Series A-2 redeemable convertible preferred stock, $0.00001 par value: 522,627 shares authorized at June 30, 2021 and December 31, 2020; 401,347 shares authorized, issued and outstanding at June 30, 2021 and December 31, 2020; aggregate liquidation preference of $49,342 at June 30, 2021 and December 31, 2020	46,480	46,480
Series B redeemable convertible preferred stock, $0.00001 par value: 338,663 shares authorized, issued and outstanding at June 30, 2021 and December 31, 2020; aggregate liquidation preference of $204,302 at June 30, 2021 and December 31, 2020	118,824	118,824
Series C redeemable convertible preferred stock, $0.00001 par value: 197,824 shares authorized at June 30, 2021 and December 31, 2020; 197,821 shares issued and outstanding at June 30, 2021 and December 31, 2020; aggregate liquidation preference of $121,397 at June 30, 2021 and December 31, 2020	117,324	117,324
Redeemable convertible preferred stock	334,439	334,439
Stockholders' deficit:		
Class A common stock, $0.00001 par value: 2,500,000 shares authorized at June 30, 2021 and December 31, 2020; 36 and 1 share issued and outstanding at June 30, 2021 and December 31, 2020, respectively	—	—
Class B convertible common stock, $0.00001 par value: 15,000,000 shares authorized at June 30, 2021 and December 31, 2020; 1,117,413 and 105,429 shares issued and outstanding at June 30, 2021 and December 31, 2020, respectively	—	—
Additional paid-in capital	1,483	—
Accumulated deficit	(566,406)	(330,051)
Total stockholders' deficit	(564,923)	(330,051)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$ 175,533	$ 251,642

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

Mount Sinai Genomics, Inc.
Condensed Statements of Operations and Comprehensive Loss
(in thousands, except share amounts)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2021	**2020**	**2021**	**2020**
Revenue				
Diagnostic test revenue (including related party revenue of $37 and $39 for the three months ended June 30, 2021 and 2020, respectively and $70 and $100 for the six months ended June 30, 2021 and 2020, respectively)	$ 44,803	$ 29,796	$ 107,563	$ 75,866
Other revenue (including related party revenue of $62 and $0 for the three months ended June 30, 2021 and 2020, respectively and $89 and $0 for the six months ended June 30, 2021 and 2020, respectively)	2,062	306	3,653	891
Total revenue	46,865	30,102	111,216	76,757
Cost of services (including related party expenses of $1,008 and $459 for the three months ended June 30, 2021 and 2020, respectively and $1,286 and $1,033 for the six months ended June 30, 2021 and 2020, respectively)	49,631	35,985	121,443	75,224
Gross (loss) profit	(2,766)	(5,883)	(10,227)	1,533
Research and development	11,954	9,361	65,085	22,457
Selling and marketing	16,247	8,686	47,816	20,419
General and administrative	12,794	8,121	114,711	15,285
Related party expenses	888	2,111	2,685	4,306
Loss from operations	(44,649)	(34,162)	(240,524)	(60,934)
Other income (expense):				
Interest income	9	76	30	410
Interest expense	(722)	(615)	(1,445)	(1,189)
Other income, net	—	2,649	5,584	2,671
Total other income (expense), net	(713)	2,110	4,169	1,892
Loss before income taxes	$ (45,362)	$ (32,052)	$ (236,355)	$ (59,042)
Income tax provision	—	—	—	—
Net loss and comprehensive loss	$ (45,362)	$ (32,052)	$ (236,355)	$ (59,042)
Weighted average shares outstanding of Class A common stock	8	1	4	1
Basic and diluted net loss per share, Class A common stock	$ (5)	$ (32,052)	$ (317)	$ (59,042)
Weighted average shares outstanding of Class B common stock	888,087	—	667,203	—
Basic and diluted net loss per share, Class B common stock	$ —	$ —	$ —	$ —

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

Mount Sinai Genomics, Inc.
Condensed Statement of Redeemable Convertible Preferred Stock and Stockholders' Deficit
(in thousands, except share amounts)
(unaudited)

Three months ended June 30, 2021

	Redeemable Convertible Preferred Stock		Class A Common Stock		Class B Common Stock				
	Shares	Amount	Shares	Par value	Shares	Par Value	Additional paid-in capital	Accumulated deficit	Total stockholders' deficit
Balances at March 31, 2021	1,385,204	$ 334,439	1	$ —	604,649	$ —	$ —	$ (521,044)	$ (521,044)
Net Loss	—	—	—	—	—	—	—	(45,362)	(45,362)
Stock option exercises	—	—	35	—	512,764	—	1,483	—	1,483
Balance at June 30, 2021	1,385,204	$ 334,439	36	$ —	1,117,413	$ —	$ 1,483	$ (566,406)	$ (564,923)

Six months ended June 30, 2021

	Redeemable Convertible Preferred Stock		Class A Common Stock		Class B Common Stock				
	Shares	Amount	Shares	Par value	Shares	Par Value	Additional paid-in capital	Accumulated deficit	Total stockholders' deficit
Balances at December 31, 2020	1,385,204	$ 334,439	1	$ —	105,429	$ —	$ —	$ (330,051)	$ (330,051)
Net Loss	—	—	—	—	—	—	—	(236,355)	(236,355)
Stock option exercises	—	—	35	—	1,011,984	—	1,483	—	1,483
Balance at June 30, 2021	1,385,204	$ 334,439	36	$ —	1,117,413	$ —	$ 1,483	$ 566,406	$ (564,923)

Mount Sinai Genomics, Inc.

Condensed Statement of Redeemable Convertible Preferred Stock and Stockholders' Deficit

(in thousands, except share amounts)

(unaudited)

Three months ended June 30, 2020

	Redeemable Convertible Preferred Stock		Class A Common Stock		Class B Common Stock				
	Shares	Amount	Shares	Par value	Shares	Par value	Additional paid-in capital	Accumulated deficit	Total Stockholder's deficit
Balances at March 31, 2020	1,187,383	$ 217,115	1	$ —	—	$ —	$ —	$ (115,701)	$ (115,701)
Net loss	—	—	—	—	—	—	—	(32,052)	(32,052)
Balances at June 30, 2020	1,187,383	$ 217,115	1	$ —	—	$ —	$ —	$ (147,753)	$ (147,753)

Six months ended June 30, 2020

	Redeemable Convertible Preferred Stock		Class A Common Stock		Class B Common Stock				
	Shares	Amount	Shares	Par value	Shares	Par value	Additional paid-in capital	Accumulated deficit	Total Stockholder's deficit
Balances at December 31, 2019	1,187,383	$ 217,115	1	$ —	—	$ —	$ —	$ (88,711)	$ (88,711)
Net loss	—	—	—	—	—	—	—	(59,042)	(59,042)
Balances at June 30, 2020	1,187,383	$ 217,115	1	$ —	—	$ —	$ —	$ (147,753)	$ (147,753)

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

Mount Sinai Genomics, Inc.
Condensed Statements of Cash Flows
(in thousands)
(unaudited)

	Six months ended June 30,	
	2021	2020
Operating activities		
Net loss	$ (236,355)	$ (59,042)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	10,521	5,080
Stock-based compensation expense	164,443	620
Provision for excess and obsolete inventory	2,466	—
Non-cash lease expense	383	5,165
Change in operating assets and liabilities:		
Accounts receivable	7,476	(277)
Inventory	(6,632)	1,305
Prepaid expenses and other current assets	(9,697)	2,574
Due to/from related parties	(295)	(350)
Other assets	—	1,174
Accounts payable and accrued expenses	8,447	269
Contract liabilities	(442)	216
Other current liabilities	(7,824)	(2,915)
Net cash used in operating activities	(67,509)	(46,181)
Investing activities		
Purchases of property and equipment	(3,320)	(13,553)
Development of internal-use software assets	(6,155)	(1,933)
Net cash used in investing activities	(9,475)	(15,486)
Financing activities		
Proceeds from long-term debt	—	6,000
Exercise of stock options	974	—
Long-term debt principal payments	(848)	(2,316)
Capital lease principal payments	(1,994)	—
Payment of deferred transaction costs	(2,779)	—
Net cash (used in) provided by financing activities	(4,647)	3,684
Net decrease in cash, cash equivalents and restricted cash	(81,631)	(57,983)
Cash, cash equivalents and restricted cash, at beginning of period	118,960	115,006
Cash, cash equivalents and restricted cash, at end of period	$ 37,329	$ 57,023
Supplemental disclosures of cash flow information		
Cash paid for interest	$ 1,445	$ 1,238
Purchases of property and equipment in accounts payable and accrued expenses	$ 87	$ 301
Software development costs in accounts payable and accrued expenses	$ 1,225	$ 1,972
Assets acquired under capital leases obligations	$ 641	$ 5,128
Non-cash impact of shares reclass into APIC	$ 1,483	$ —
Deferred transaction costs included in accounts payable and accrued expenses	$ 5,799	$ —

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

1. Organization and Description of Business

Mount Sinai Genomics, Inc., d/b/a Sema4 (the "Company" or "Sema4") provides genomics-related diagnostic and information services and pursues genomics medical research. The Company utilizes an integrated portfolio of laboratory processes, software tools and informatics capabilities to process DNA-containing samples, analyze information about patient-specific genetic variation and generate test reports for clinicians and their patients. The Company provides a variety of genetic diagnostic tests and information with focus on reproductive health, pediatric, oncology and other conditions. In 2020, the Company began to provide diagnostic testing services in response to the recent novel coronavirus ("COVID-19") outbreak. The Company serves patients and bills third party payors across the United States, with a substantial portion of its diagnostic testing volume occurring in the states of New York, California, Florida, Connecticut, and New Jersey.

The Company was incorporated in the State of Delaware as a for-profit corporation on October 16, 2015, with limited operations focused on establishing the Company as a capitalized, standalone entity. On June 1, 2017, the Company signed a contribution and funding agreement and other agreements with Icahn School of Medicine at Mount Sinai ("ISMMS"), whereby ISMMS contributed certain assets and liabilities related to the Company's operations, provided certain services to the Company, and also committed to fund the Company up to $55.0 million in future capital contributions in exchange for equity in the Company (the "Spin-out"). Following the Spin-out, the Company commenced operations and began providing the services and performing research. The Company continues to be a party to service agreements ("Service Agreements") with ISMMS (see Note 6).

On February 9, 2021, the Company, CM Life Sciences, Inc. ("CMLS"), and S-IV Sub, Inc., a direct and wholly-owned subsidiary of CMLS, entered into an Agreement and Plan of Merger (the "Merger Agreement"). On July 22, 2021, the Company consummated the merger contemplated by the Merger Agreement, whereby Merger Sub merged with and into the Company, with the Company surviving the merger as a wholly-owned subsidiary of CMLS (the "Merger" and, together with the other transactions contemplated by the Merger Agreement, the "Business Combination"). In connection with the consummation of the Business Combination, CMLS changed its name to "Sema4 Holdings Corp." and the Company changed its name to "Sema4 OpCo, Inc." All equity securities of the Company were converted into the right to receive the applicable portion of merger consideration, discussed in Note 14 "Subsequent Events".

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed 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, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. As such, the accompanying unaudited condensed financial statements should be read in conjunction with the Company's audited financial statements and notes thereto as of and for the years ended December 31, 2020, 2019 and 2018 that are included in the definitive proxy statement filed with the SEC on July 2, 2021.

The accompanying unaudited condensed financial statements reflect all normal recurring adjustments that are necessary to state fairly the results 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 Company’s historical financial information includes costs of certain services historically provided by ISMMS pursuant to the Transition Services Agreement ("TSA") and Service Agreements. The Company’s historical results are not necessarily indicative of what its results of operations, financial position, cash flows, or costs and expenses would have been had the Company been an independent entity during the historical periods presented or what its results of operations, financial position, cash flows, or costs and expenses will be in the future when it is a publicly traded, stand-alone company.

Liquidity and Going Concern

The Company has evaluated whether there are certain conditions and events, considered in the aggregate, that raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date that the unaudited condensed financial statements are issued. Based on its recurring losses from operations incurred since inception, expectation of continuing operating losses for the foreseeable future, and the need to raise additional capital to finance its future operations raised substantial doubt about the Company’s ability to continue as a going concern, as disclosed in the Company’s audited financial statements as of December 31, 2020 and 2019 and unaudited condensed financial statements included within the definitive proxy statement filed with the SEC on July 2, 2021.

On July 22, 2021, the Company completed the Merger with CMLS and received net cash proceeds of $510 million. Management determined that the cash proceeds received from the Merger provides the Company with sufficient liquidity to meet its obligations for at least twelve months from the date of this report. Accordingly, management believes that its plans to improve the Company’s liquidity position have been effectively implemented and the conditions that previously raised substantial doubt about the Company’s ability to continue as a going concern have been mitigated.

Accordingly, the unaudited condensed financial statements have been prepared on a basis that assumes the Company 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.

Segment Information

The Company operates and manages its business as one reportable operating segment based on the manner in which the Chief Executive Officer, who is the Company’s chief operating decision maker (“CODM”), assesses performance and allocates resources across the business.

Use of Estimates

The preparation of unaudited condensed 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 unaudited condensed 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, the capitalization of software costs and the valuation of stock-based awards and inventory. Actual results could differ materially from those estimates, judgments and assumptions.

Concentration of Credit Risk and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents and accounts receivable.

The Company's cash and cash equivalents are deposited with high-quality financial institutions. The Company has balances in financial institutions that exceed federal depository insurance limits. Management believes these financial institutions are financially sound and, accordingly, that minimal credit risk exists. The Company has not experienced any losses on its deposits of cash and cash equivalents.

The Company assesses both the customer and, if applicable, the third-party payor that reimburses the Company on the customer's behalf when evaluating concentration of credit risk. Significant customers and payors are those that represent more than 10% of the Company's total annual revenues or accounts receivable balance at each respective balance sheet date. The significant concentrations of accounts receivable at June 30, 2021 and December 31, 2020 were primarily from large managed care insurance companies and a reference laboratory. There was no individual customer that accounted for 10% or more of revenue or accounts receivable for any of the periods presented. The Company does not require collateral as a means to mitigate customer 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 June 30,		Six months ended June 30,		As of June 30,	As of December 31,
	2021	2020	2021	2020	2021	2020
Payor A	21 %	35 %	17 %	40 %	16 %	10 %
Payor B	*	11 %	*	*	*	*
Payor C	13 %	17 %	13 %	15 %	10 %	*
Payor D	*	*	10 %	10 %	*	*
Payor E	*	*	*	*	*	20 %

*less than 10%

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 11% and 8% of purchases of lab supplies, reagents and kits for the six months ended June 30, 2021 and 2020, respectively and 10% and 4% for the three months ended June 30, 2021 and 2020. This risk is managed by maintaining a target quantity of surplus stock.

Impact of COVID-19

In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. COVID-19 has had, and continues to have, an extensive impact on the global health and economic environments. Many jurisdictions, including those in which the Company has locations, have implemented measures to combat the outbreak, such as travel restrictions and shelter in place orders. In addition, the healthcare sector generally experienced a decline in discretionary care services at the onset of the pandemic.

Beginning in April 2020, the Company's diagnostic test volumes decreased significantly as compared to the prior year as a result of COVID-19 and the related limitations and priorities across the healthcare system. In response, beginning in May 2020, the Company entered into several service agreements with state governments and healthcare institutions to provide testing for the presence of COVID-19 infection. While test volumes have since improved, the Company continues to experience changes in the mix of tests due to the impact of COVID-19. COVID-19 could continue to have a material impact on the Company's results of operations, cash flows and financial condition for the foreseeable future.

In March 2020, the Coronavirus Aid, Relief and Economic Security Act (“CARES Act”) was signed into law, which was a stimulus bill that, among other things, provided assistance to qualifying businesses and individuals and included funding for the healthcare system. During 2020, as part of the stimulus, the Company received $5.4 million, comprised of $2.6 million received under the Provider Relief Fund (“PRF”) distribution, which was recognized in other income, net in the statements of operations and comprehensive loss, and $2.8 million received under the Employee Retention Credit (“ERC”) distribution, which was recorded in the other liabilities and reflected in this balance as of June 30, 2021 and December 31, 2020.

During 2021, the Company received an additional $5.6 million under the PRF distribution, which was recognized in other income, net in the statements of operations and comprehensive loss.

Cash, Cash Equivalents and Restricted Cash

Cash equivalents consist of amounts invested in money market funds. Carrying values of cash equivalents approximate fair value due to the short-term nature of these instruments.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported on the condensed balance sheets that sum to the total of the same amounts shown on the condensed statements of cash flows (in thousands):

	As of June 30, 2021	As of December 31, 2020
Cash and cash equivalents	$ 26,501	$ 108,132
Restricted cash	10,828	10,828
Total	$ 37,329	$ 118,960

Restricted cash as of June 30, 2021 consists of money market deposit accounts that secure irrevocable standby letters of credit that serve as collateral for security deposits for financing obligations and operating leases (see Note 7 and Note 8, respectively).

Deferred transaction costs

The Company capitalizes certain transaction costs, which consist of direct, incremental legal, professional, accounting and other third-party fees that are directly related to the execution of the Merger. As of June 30, 2021, the Company has deferred $8.6 million of transaction costs in prepaid expenses and other current assets on the condensed balance sheets that will be reclassified and offset against equity upon consummation of the Merger.

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.

Recently Adopted Accounting Pronouncements

Effective January 1, 2021, the Company adopted Accounting Standards Update (“ASU”) 2018-18, *Collaborative Arrangements: Clarifying the Interaction between Topic 808 and Topic 606* (“ASU 2018-18”), which clarifies that certain transactions between participants in a collaborative arrangement should be accounted for under

ASC Topic 606 (“ASC 606”), *Revenue from Contracts with Customers*, when the counterparty is a customer. In addition, ASC Topic 808 (“ASC 808”), *Collaborative Arrangements* precludes an entity from presenting consideration from a transaction in a collaborative arrangement as revenue from contracts with customers if the counterparty is not a customer for that transaction. Adoption of ASU 2018-18 did not have an impact on the Company’s unaudited condensed financial statements as the Company is not currently a participant in any such collaborative arrangements.

Recently Issued Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, Leases (“ASU 2016-02”), which requires lessees to recognize right-of-use assets and lease liabilities for most leases on their balance sheets. Expense recognition for lessees under ASU 2016-02 is similar to current lease accounting. ASU 2016-02 will require enhanced disclosures to help the financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. The recognition, measurement and presentation of expenses and cash flows arising from a lease will primarily depend on its classification as a finance or operating lease. As an emerging growth company, the provisions of ASU 2016-02 are effective for the Company for annual and interim periods beginning after December 15, 2021. Early adoption is permitted. The Company is evaluating the transition options permissible under ASU 2016-02 and plans to adopt through a cumulative adjustment to retained earnings on the date of adoption. Significant implementation matters being addressed by the Company include documenting the new lease accounting process, and determining incremental borrowing rate and complete population of the leases for evaluation. The Company is evaluating the effect this ASU will have on its financial statements, related disclosures and ongoing financial reporting. The Company expects implementation of this ASU to result in the recognition of right-of-use assets and corresponding lease liabilities in its balance sheets, principally related to office and facility leases.

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. As an emerging growth company, ASU 2016-13 is effective for annual periods beginning after December 15, 2022, with early adoption permitted. Application of the amendments is through a cumulative-effect adjustment to the opening retained earnings as of the beginning of the first reporting period in which the guidance is effective. The Company is currently evaluating the impact of the new guidance on its financial statements and related disclosures.

In August 2018, the FASB issued ASU 2018-15, *Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* (“ASU 2018-15”), which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by the standard. ASU 2018-15 will require an entity (customer) in a hosting arrangement that is a service contract to follow the guidance in Subtopic 350-40 to determine which implementation costs to capitalize as an asset related to the service contract and which costs to expense. ASU 2018-15 also requires the entity (customer) to expense the capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting arrangement. Additionally, ASU 2018-15 requires the entity to present the expense related to the capitalized implementation costs in the same line item in the statement of income as the fees associated with the hosting element (service) of the arrangement and classify payments for capitalized implementation costs in the statement of cash flows in the same manner as payments made for fees associated with the hosting element. The entity is also required to present the capitalized implementation costs on the balance sheets in the same line item that a prepayment for the fees of the associated hosting arrangement would be presented. The amendments in ASU 2018-15 are effective for the Company in annual reporting periods beginning after December 15, 2020 and interim periods beginning after December 15, 2021. Early adoption is permitted. The Company is expecting to prospectively apply amendments to all implementation costs incurred after the date of adoption.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* (“ASU 2019-12”). ASU 2019-12 simplifies the accounting for income taxes by removing certain exceptions to the general principles in ASC 740 and clarifying and amending existing guidance to improve consistent application. ASU 2019-12 is effective for fiscal years beginning after December 15, 2021. Early adoption is permitted. The Company is currently assessing the impact of adopting this new accounting guidance will have on its financial statements and related disclosures.

3. Revenue Recognition

Diagnostic Revenue

The majority of revenue is generated from diagnostic services provided to three groups of customers: patients with third-party insurance coverage; patients without third-party insurance coverage or those who elect to self-pay; and institutional clients, such as hospitals, clinics and reference laboratories. Revenue from diagnostic testing services is recorded at the estimated transaction price, subject to the constraint for variable consideration, upon transfer of control of the service.

Other Revenue

The Company enters into both short-term and long-term project-based collaboration service agreements with third parties, whereby the Company provides diagnostic testing, research and related data aggregation reporting services. The consideration to which the Company is entitled pursuant to its collaboration service agreements generally includes non-refundable upfront payments and variable payments based upon the achievement of certain milestones during the contract term. Non-refundable upfront payments are generally received in advance of performing the services and, therefore, are recorded as a contract liability upon receipt. Milestone payments are included in the transaction price only when it is probable that doing so will not result in a significant reversal of cumulative revenue recognized when the uncertainty associated with the milestone is subsequently resolved. Revenue for such collaboration service agreements is recognized over time using an input measure based on costs incurred to satisfy the performance obligation.

Disaggregated revenue

The following tables summarize the Company's revenue disaggregated by type of customer (in thousands):

	Three months ended June 30,	
	2021	2020
Diagnostic test revenue		
Patients with third-party insurance	$ 40,210	$ 27,399
Institutional customers	3,755	2,007
Self-pay patients	838	390
Total diagnostic test revenue	44,803	29,796
Other revenue	2,062	306
Total	$ 46,865	$ 30,102

	Six months ended June 30,	
	2021	2020
Diagnostic test revenue		
Patients with third-party insurance	$ 86,409	$ 71,795
Institutional customers	19,419	3,152
Self-pay patients	1,735	919
Total diagnostic test revenue	107,563	75,866
Other revenue	3,653	891
Total	$ 111,216	$ 76,757

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 June 30, 2021, the quarterly change in estimate resulted in a $0.5 million downward adjustment for tests in which the performance obligation of delivering the test results was met in prior periods. The change in estimate is 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. For the three months ended June 30, 2020, the quarterly change in estimate did not result in material adjustments to the Company's previously reported revenue or accounts receivable amounts.

Remaining performance obligations

Due to the long-term nature of collaboration service agreement, the Company's obligations pursuant to such agreement represent partially unsatisfied performance obligations as of June 30, 2021. The revenues under existing collaboration service agreements with original expected durations of more than one year are estimated to be approximately $11.4 million. The Company expects to recognize the majority of this revenue over the next 4 years.

Contract assets and liabilities

Contract assets consist of the Company's right to consideration that is conditional upon its future performance. Contract assets arise in collaboration service agreements for which revenue is recognized over time but the Company's right to bill the customer is contingent upon the achievement of contractually-defined milestones.

Contract liabilities consist of customer payments in excess of revenues recognized. For collaboration service agreements, the Company assesses the performance obligations and recognizes contract liabilities as current or non-current based upon forecasted performance.

A reconciliation of the beginning and ending balances of contract assets and contract liabilities is shown in the table below (in thousands):

	Contract Assets	Contract Liabilities
December 31, 2020	$ 2,028	$ 3,811
Contract asset additions	487	—
Customer prepayments	—	1,723
Revenue recognized	(61)	(1,739)
June 30, 2021	$ 2,454	$ 3,795

The decrease in contract liabilities as of June 30, 2021 is primarily due to the execution of the performance obligations during the period. The Company presents contract assets and contract liabilities with respect to customer contracts on a net basis on its condensed balance sheets. As of June 30, 2021 and December 31, 2020, $1.3 million and $1.8 million is recorded as current contract liabilities, respectively.

Revenues recognized that were included in the contract liability balance at the beginning of each period were $1.5 million and $0.3 million, respectively, for the three months ended June 30, 2021 and June 30, 2020 and $2.2 million and $0.8 for the six months ended June 30, 2021 and June 30, 2020.

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 ISMMS. Amounts are generally prepaid and then expensed in line with the pattern of revenue recognition. Prepayment of amounts prior to the costs being incurred are recognized on the condensed balance sheets as current or non-current based upon forecasted performance.

As of June 30, 2021 and December 31, 2020, the Company had outstanding deferred costs to fulfill contracts of $2.5 million and $3.0 million, respectively. As of June 30, 2021 and December 31, 2020, all outstanding deferred costs were recorded as prepaid expenses and other current assets.

Amortization of deferred costs was $0.3 million and $0.2 million for the three months ended June 30, 2021 and 2020, respectively and $0.5 million and $0.5 million for the six months ended June 30, 2021 and 2020, respectively. The amortization of these costs is recorded in cost of services on the condensed statements of operations and comprehensive loss.

4. Fair Value Measurements

The Company's financial assets and liabilities consist of cash and cash equivalents, restricted cash, accounts receivable, accounts payable, accrued liabilities, capital leases and long-term debt. The Company's cash and cash equivalents, restricted cash, accounts receivable, accounts payable and accrued liabilities approximate their fair value due to the relatively short-term nature of these accounts.

The Company's capital leases and long-term debt are classified within level 1 of the fair value hierarchy because such long-term debt and capital lease agreements bear interest at rates for instruments with similar characteristics; accordingly, the carrying value of these liabilities approximate their fair values.

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

	As of June 30, 2021			
	Total	Level 1	Level 2	Level 3
Financial Assets:				
Money market funds	$ 21,904	$ 21,904	$ —	$ —
Total financial assets	$ 21,904	$ 21,904	$ —	$ —

	As of December 31, 2020			
	Total	Level 1	Level 2	Level 3
Financial Assets:				
Money market funds	$ 92,940	$ 92,940	$ —	$ —
Total financial assets	$ 92,940	$ 92,940	$ —	$ —

Money market funds are classified within Level 1 of the fair value hierarchy as the fair value is based on quoted prices in active markets.

There were no transfers between Level 1, Level 2 and Level 3 during the periods presented.

5. Property and Equipment

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

	As of June 30, 2021	As of December 31, 2020
Laboratory equipment	$ 23,904	$ 22,818
Equipment under capital leases	21,384	20,743
Building under capital lease	6,276	6,276
Construction in-progress	1,226	4,673
Capitalized software	20,539	14,631
Computer equipment	4,602	4,118
Furnitures, fixtures and other equipment	3,222	3,214
Leasehold improvements	21,564	16,736
Total property and equipment	102,717	93,209
Less: accumulated depreciation and amortization	(40,620)	(30,099)
Property and equipment, net	$ 62,097	$ 63,110

For the three months ended June 30, 2021 and 2020, depreciation and amortization expense was $5.6 million and $2.7 million. For the six months ended June 30, 2021 and 2020, depreciation and amortization expense was $10.5 million and $5.1 million, respectively. This included software amortization expense of $1.4 million and $0.7 million for the three months ended June 30, 2021 and 2020 and $2.6 million and $1.2 million for the six months ended June 30, 2021 and 2020, respectively. Depreciation and amortization expense is included within the condensed statements of operations and comprehensive loss as follows (in thousands):

	Three months ended June 30,	
	2021	2020
Cost of services	$ 4,087	$ 2,030
Research and development	1,446	261
Selling and marketing	1	—
General and administrative	85	391
Total depreciation and amortization expenses	$ 5,619	$ 2,682

	Six months ended June 30,	
	2021	2020
Cost of services	$ 7,145	$ 3,822
Research and development	2,697	510
Selling and marketing	1	—
General and administrative	678	748
Total depreciation and amortization expenses	$ 10,521	$ 5,080

6. Related Party Transactions

Related party revenues

Related party revenue with Mount Sinai Health Network for diagnostic testing revenues were nominal for the three months ended June 30, 2021 and June 30, 2020. Related party revenue with Mount Sinai Health Network for diagnostic testing revenues were $0.1 million for the six months ended June 30, 2021 and June 30, 2020. Related party revenues from collaborative service agreements were nominal for the three and six months ended June 30, 2021, while there were none for the three and six months ended June 30, 2020.

The Company had amounts due from ISMMS and other entities within the Mount Sinai Health Network for revenues earned of $0.4 million and $0.3 million as of June 30, 2021 and December 31, 2020, respectively. These amounts are presented as due from related parties on the Company’s condensed balance sheets.

Related party costs

Expenses recognized under the TSA totaled $0 and $1.9 million for the three months ended June 30, 2021 and 2020, respectively and $1.4 million and $3.8 million for the six months ended June 30, 2021 and 2020 and are presented within related party expenses in the condensed statements of operations and comprehensive loss. The Company had TSA payables due to ISMMS of $0 and $0.6 million at June 30, 2021 and December 31, 2020, respectively. These amounts are included within due to related parties on the Company’s condensed balance sheets.

Expenses recognized pursuant to the Service Agreements and other service arrangements with ISMMS totaled $1.9 million and $0.7 million for the three months ended June 30, 2021 and 2020 and $2.6 million and $1.6 million for the six months ended June 30, 2021 and 2020, respectively. These amounts are included in either cost of services or related party expenses on the condensed statements of operations and comprehensive loss depending on the particular activity to which the costs relate. Payables due to ISMMS for the Service Agreements and other service arrangements were $1.3 million $0.8 million at June 30, 2021 and December 31, 2020, respectively. These amounts are included within due to related parties on the Company's condensed balance sheets.

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

	Three months ended June 30,	
	2021	2020
Cost of services	$ 1,008	$ 459
Related party expenses	888	2,111
Total related party costs	$ 1,896	$ 2,570

	Six months ended June 30,	
	2021	2020
Cost of services	$ 1,286	$ 1,033
Related party expenses	2,685	4,306
Total related party costs	$ 3,971	$ 5,339

7. Long-Term Debt

2016 Funding Commitment

In June 2017, ISMMS assigned a loan funding commitment from the Connecticut Department of Economic and Community Development ("DECD") to the Company. The DECD loan agreement, as amended, provides 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 is 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 is due in July 2028. This commitment is collateralized by providing a security interest in certain machinery and equipment the Company acquired from ISMMS, as defined in a separate security agreement. ISMMS also guarantees the Company's obligation to repay the DECD.

The outstanding loan balance from the DECD was $11.0 million at June 30, 2021 and December 31, 2020.

2020 Master Loan Agreement

In August 2020, the Company entered into a loan and security agreement with a bank, in which the Company received a loan of $6.3 million and deposited the proceeds into a deposit account held by the bank. The Company is required to make sixty consecutive monthly payments of principal and interest at a fixed monthly amount of $0.1 million beginning in November 2020. Interest payments are fixed at an annual interest rate of 4.75%.

The Company recorded the $6.3 million proceeds as restricted cash on the condensed balance sheets at June 30, 2021 and December 31, 2020. The outstanding loan balance was $5.5 million and $6.1 million at June 30, 2021 and December 31, 2020, respectively.

2020 Master Lease Agreement

In December 2020, the Company entered into a lease agreement with a lender whereby the Company agreed to sell certain equipment and immediately leaseback the equipment, resulting in proceeds of $3.6 million. Per the terms of the agreement, a financial institution issued an irrevocable standby letter of credit to the lender for $3.6 million.

The Company is required to make sixty consecutive monthly payments of principal and interest at a fixed monthly amount of $0.1 million beginning in February 2021. Interest payments are fixed at an annual interest rate of 3.54%.

The Company must maintain an aggregate amount on deposit equal to at least 105% of the value of any outstanding letters of credit issued by the financial institution on the Company's behalf. The letter of credit must be in place until all obligations have been paid in full. Further, the Company must furnish annual audited financial statements and other financial information to the lender on a regular basis. The Company was in compliance with the covenants as of June 30, 2021.

The Company recorded the $3.6 million proceeds as restricted cash on the condensed balance sheets at June 30, 2021 and December 31, 2020. The outstanding loan balance was $3.4 million and $3.6 million at June 30, 2021 and December 31, 2020, respectively.

Maturities of Long-Term Debt

As of June 30, 2021, long-term debt matures as follows (in thousands):

2021 (remainder of year)	$	923
2022		1,906
2023		2,865
2024		4,208
2025		4,106
Thereafter		5,886
Total maturities of long-term debt		19,894
Less: current portion of long-term debt		(1,866)
Total long-term debt, net of current maturities	$	18,028

8. Commitments and Contingencies

Operating Leases

The Company's operating leases consist of office and lab space leases and a ground lease associated with a building under capital lease. The Company has entered into leases of office and lab space with ISMSS, including month-to-month leases in place during the six months ended June 30, 2021 and 2020. Pursuant to the terms of a lease agreement, the Company was required to have issued an irrevocable standby letter of credit to the lessor for $0.9 million, which was included in restricted cash on the condensed balance sheets as of June 30, 2021 and December 31, 2020.

Future minimum payments under non-cancelable operating leases as of June 30, 2021 are as follows (in thousands):

2021 (remainder of year)	$	2,138
2022		4,383
2023		4,474
2024		4,562
2025		4,684
Thereafter		50,238
Total operating lease obligations	$	70,479

Rent expense related to non-cancelable operating leases was $1.4 million and $1.3 million for the three months ended June 30, 2021 and 2020, respectively. Rent expense related to month-to-month operating leases was $0.3 million and $0.8 million for the three months ended June 30, 2021 and 2020. Rent expense related to non-cancelable operating leases was $2.8 million and $2.6 million for the six months ended June 30, 2021 and 2020, respectively. Rent expense related to month-to-month operating leases was $0.6 million and $1.6 million for the six months ended June 30, 2021 and 2020.

Capital Leases

The Company entered into various capital lease agreements to obtain laboratory equipment which contain bargain purchase commitments at the end of the lease term. The terms of the capital leases range from 3 to 5 years with interest rates ranging from 1.9% to 12.0%. The leases are secured by the underlying equipment. The Company also leases a building used for office and laboratory space in which the building is accounted for as a capital lease and the land is as an operating lease.

Property and equipment under capital leases was $27.7 million and $27.0 million as of June 30, 2021 and December 31, 2020, respectively. Accumulated amortization on capital lease assets was $11.7 million and $9.7 million at June 30, 2021 and December 31, 2020, respectively.

For all capital leases, the portion of the future payments designated as principal repayment is recorded as a capital lease obligation on the Company's condensed balance sheets in accordance with repayment terms. Future payments under capital leases at June 30, 2021, are as follows (in thousands):

2021 (remainder of year)	$	2,322
2022		4,808
2023		3,584
2024		2,763
2025		2,451
Thereafter		51,886
Total capital lease obligations		67,814
Less: amounts representing interest		(44,850)
Present value of net minimum capital lease payments		22,964
Less : current portion		(3,483)
Capital lease obligations, net of current portion	$	19,481

Interest expense related to capital leases was $0.6 million for the three months ended June 30, 2021 and 2020 and $1.1 million for the six months ended June 30, 2021 and 2020.

Contingencies

The Company may, from time to time, become involved in legal proceedings arising out of the normal course of its operations. For instance, the Company may be subject to lawsuits alleging negligence or other similar legal claims related to its provision of genetic testing and/or information services. The Company establishes reserves for specific legal matters when it determines that the likelihood of an unfavorable outcome is probable and the loss is reasonably estimable. The Company has also identified certain other legal matters where it believes an unfavorable outcome is not probable and, therefore, no reserve is established. Although management currently believes that resolving claims against the Company, including claims where an unfavorable outcome is reasonably possible, will not have a material impact on the liquidity, results of operations, or financial condition of the Company, these matters are subject to inherent uncertainties and management's view of these matters may change in the future. It is possible that an unfavorable outcome of one or more of these lawsuits or other contingencies could have a material impact on the liquidity, results of operations, or financial condition of the Company.

Significant judgment is required in both the determination of probability of loss and the determination as to whether the amount can be reasonably estimated. Accruals are based only on information available at the time of the assessment, due to the uncertain nature of such matters. As additional information becomes available, management reassesses potential liabilities related to pending claims and litigation and may revise its previous estimates, which could materially affect the Company’s results of operations in a given period.

The Company maintains various liability insurance coverages for, among other things, claims that could result from providing, or failing to provide diagnostic testing services, including inaccurate testing results, and other exposures. The Company’s insurance coverage limits its maximum exposure on claims; however, the Company is responsible for any uninsured portion of losses. Management believes that present insurance coverage is sufficient to cover potential exposures.

The Company was not a party to any material legal proceedings at June 30, 2021, nor is it a party to any legal proceedings as of the date of issuance of these unaudited condensed financial statements.

9. Stock-Based Compensation

The Company adopted the 2017 Stock Incentive Plan (the 2017 Plan) in April of 2017. The 2017 Plan was amended in February 2018, offering total aggregate shares of up to 279,192 shares of Class A common stock and Class B common stock, collectively, on an as-converted to Class A common stock basis. Following the amendment to the 2017 Plan, the Company intends to use available shares to grant Class B common stock awards.

Under the 2017 Plan, the Company has a call option to repurchase awards for cash from the plan participants upon termination of the participant’s employment or consulting agreement. The Company concludes that it is probable it will exercise its call option prior to the award holder being subject to the risks and rewards of equity ownership. As a result, the Company’s stock-based compensation awards are classified as a liability. Shares of common stock issued upon settlement of an award continue to be classified as a liability and remeasured to fair value 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 a period of at least six months.

The Company historically granted stock appreciation rights (“SAR”) to one employee and one consultant. The SAR can only be exercised upon a liquidation event, which the Company concludes is not probable of occurring as of June 30, 2021. As a result, no expense related to the SAR was recognized by the Company during the three and six months ended June 30, 2021 and 2020. The Company did not grant SARs to any employees or consultants during the three and six months ended June 30, 2021.

As of June 30, 2021 and December 31, 2020, stock-based compensation liabilities were $295.0 million and $132.0 million, respectively. Stock-based compensation expense is included within the condensed statements of operations and comprehensive loss as follows (in thousands):

	Three months ended June 30,	
	2021	2020
Cost of services	$ (319)	$ (126)
Research and development	(370)	(130)
Selling and marketing	1,078	(19)
General and administrative	(908)	80
Total Stock-based compensation expense	$ (519)	$ (195)

	Six months ended June 30,	
	2021	2020
Cost of services	$ 19,463	$ (6)
Research and development	37,817	104
Selling and marketing	18,459	107
General and administrative	88,704	415
Total Stock-based compensation expense	$ 164,443	$ 620

The following summarizes the activity under the 2017 Plan for Class A and Class B common stock options (in thousands, except share and per share amounts):

Class A Common Stock	Shares Available for Grant	Stock Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value
Balances at December 31, 2020	—	122,000	$ 18.94	6.57	$ 80,565
Options forfeited and cancelled	—	—			—
Options exercised		(35)			
Balances at June 30, 2021	—	121,965	$ 18.94	6.08	$ 169,224
Options exercisable at June 30, 2021		119,625	$ 18.94	5.89	$ 165,977

All outstanding stock options for Class A common stock have an exercise price of $18.94.

Class B Common Stock	Shares Available for Grant	Stock Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value
Balances at December 31, 2020	1,308,167	13,915,604	$ 1.09	8.91	$ 79,334
Options granted	(194,706)	194,706	2.36		—
Options forfeited and cancelled	1,954,545	(1,954,545)	1.45		—
Options exercised		(1,011,984)	1.45		—
Balances at June 30, 2021	3,068,006	11,143,781	$ 1.06	8.36	$ 144,895
Options exercisable at June 30, 2021		5,725,757	$ 0.80	7.97	$ 75,936

The aggregate intrinsic value in the tables above calculates the difference between the exercise price of the underlying stock options and the fair value of the Company's common stock for stock options that were in-the-money and represents the value that would have been received by the option holders had all option holders exercised their options on June 30, 2021.

The estimated fair value of the stock option awards as of June 30, 2021 and June 30, 2020, was estimated using the Black-Scholes option pricing model with the following assumptions:

	Six Months ended June 30,	
	2021	2020
Expected volatility	46.60%- 71.60%	66.90%-76.70%
Expected term (in years)	0.17- 1.50	1.17-2.50
Risk-free interest rate	0.05%- 0.25%	0.16%-0.18%
Dividend yield	0.00 %	0.00 %
Fair value of Class A common stock	$619.57-$1,493.83	$85.42-$97.58
Fair value of Class B common stock	$6.20-$14.94	$0.85-$0.98

As of June 30, 2021, the fair value associated with the Company's stock options totaled $327.4 million. The vested portion of this fair value at June 30, 2021 was $169.1 million and $126.0 million for Class A and Class B stock options, respectively, and is included in stock-based compensation liabilities on the Company's condensed balance sheets. As of June 30, 2021, unrecognized stock-based compensation cost related to the unvested portion of the Company's stock options were $0.2 million and $32.2 million for Class A and Class B stock options, respectively. The Company expects to recognize the unrecognized compensation cost on a graded-vesting basis over a weighted-average period of 0.2 and 0.9 years for Class A and Class B stock options, respectively. Cash received from stock option exercise for the three and six months ended June 30, 2021 was $0.6 million and $1.0 million.

10. Redeemable Convertible Preferred Stock

Redeemable Convertible Preferred Stock at June 30, 2021 and December 31, 2020 consists of the following (in thousands, except share data):

Redeemable Convertible Preferred Stock	Shares Authorized	Shares Issued and Outstanding	Amount	Aggregate Liquidation Preference
Series A-1	447,373	447,373	$ 51,811	$ 55,000
Series A-2	522,627	401,347	46,480	49,342
Series B	338,663	338,663	118,824	204,302
Series C	197,824	197,821	117,324	121,397
Total Redeemable Convertible Preferred Stock	1,506,487	1,385,204	$ 334,439	$ 430,041

Voting Rights

Holders of the Redeemable Convertible Preferred Stock are entitled to a number of votes equal to the number of whole shares of Class A common stock into which it is convertible.

Dividends

Holders of the Redeemable Convertible Preferred Stock are entitled to receive or participate in dividends to the extent that dividends are declared for holders of Class A common stock and Class B common stock, at which point the holders of the Redeemable Convertible Preferred Stock are entitled to participate on an as-converted to Class A common stock basis.

The Company has not declared any cash or other dividends through June 30, 2021.

Conversion Rights

The Redeemable Convertible Preferred Stock is convertible into Class A common stock at the option of the holder at any time and without the payment of additional consideration and is mandatorily convertible upon the occurrence of certain events. The conversion ratio could be adjusted upon the Company's issuance of shares of common stock below the original issue prices of the Redeemable Convertible Preferred Stock; the issuance of certain options or securities convertible into common stock of the Company; the issuance of certain dividends; and events such as stock splits, merger and reorganization.

There were no conversions of Redeemable Convertible Preferred Stock into Class A common stock during the six months ended June 30, 2021. As of June 30, 2021 and December 31, 2020, all shares of Redeemable Convertible Preferred Stock were convertible into shares of Class A common stock at a 1:1 ratio.

Classification of Redeemable Convertible Preferred Stock

The Redeemable Convertible Preferred Stock has deemed liquidation provisions which provide the holders the option to redeem the shares upon a change in control or other deemed liquidation event. The deemed liquidation preference provisions of the Redeemable Convertible Preferred Stock are considered contingent redemption provisions that are not solely within the Company's control. Accordingly, the Redeemable Convertible Preferred Stock is presented outside of permanent equity in the mezzanine portion of the Company's condensed balance sheets. No accretion was recorded during the six months ended June 30, 2021 and 2020, as a deemed liquidation event was not considered probable.

11. Common Stock

There were 36 and 1 shares of Class A common stock issued and outstanding at June 30, 2021 and December 31, 2020, respectively. There were 1,117,413 and 105,429 shares of Class B common stock issued and outstanding at June 30, 2021 and December 31, 2020, respectively. There were 35 and 1,011,984 shares of Class A and Class B common stocks issued and outstanding at June 30, 2021 which remained liability-classified since the Company concluded that the stockholder did not yet bear the risks and rewards of equity ownership for a reasonable period of time. As of June 30, 2021, 105,429 shares of Class B common stock previously issued but recorded as the liability-classified awards were reclassified to equity as the Company concluded that the stockholder now bears the risks and rewards of equity ownership after a reasonable period of time has elapsed.

12. Income Taxes

Income taxes for the three and six months ended June 30, 2021 and June 30, 2020 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 0.0% for the three and six months ended June 30, 2021 and June 30, 2020. The primary reconciling items between the federal statutory rate of 21.0% for these periods and the Company's overall effective tax rate of 0.0% were related to the effects of deferred state income taxes, stock-based compensation, research and development credits, nondeductible transaction costs and the valuation allowance recorded against the full amount of its net deferred tax assets.

A valuation allowance is required when it is more likely than not that some portion or all of the Company's deferred tax assets will not be realized. The realization of deferred tax assets depends on the generation of sufficient future taxable income during the period in which the Company's related temporary differences become deductible. The Company has recorded a full valuation allowance against its net deferred tax assets as of June 30, 2021 and June 30, 2020 since management believes that based on the earnings history of the Company, it is more likely than not that the benefits of these assets will not be realized.

13. Net Loss per Share

For the three and six months ended June 30, 2021 and 2020, basic and diluted net loss per share attributable to common stockholders is presented in conformity with the two-class method. Net loss attributable to common stockholders was not allocated to the redeemable convertible preferred stock, as holders of the redeemable convertible preferred stock did not have a contractual obligation to share in losses.

Basic net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period. During the three and six months ended June 30, 2021 and 2020, the net loss attributable to common stockholders was equivalent to the Company's net loss and comprehensive loss. The following table sets forth the computation of basic net loss per share attributable to common stockholders (in thousands, except for share amounts):

	Three months ended June 30,	
	2021	2020
Numerator:		
Net loss attributable to common stockholders	$ (45,362)	$ (32,052)
Weighted average Class A shares outstanding used in computing allocation of net loss attributable to common stockholders	8	1
Weighted average Class B shares on an as converted to Class A basis used in computing allocation of net loss attributable to common stockholders	8,881	—
Allocation of net loss attributable to common stockholders for basic:		
Class A common stock	(41)	(32,052)
Class B common stock	(45,321)	—
Denominator:		
Weighted average shares used in computing net loss per share attributable to Class A common stockholders	8	1
Weighted average shares used in computing net loss per share attributable to Class B common stockholders	888,087	—
Basic net loss per share attributable to Class A	(5)	(32,052)
Basic net loss per share attributable to Class B	—	—

	Six months ended June 30,	
	2021	2020
Numerator:		
Net loss attributable to common stockholders	$ (236,355)	$ (59,042)
Weighted average Class A shares outstanding used in computing allocation of net loss attributable to common stockholders	4	1
Weighted average Class B shares on an as converted to Class A basis used in computing allocation of net loss attributable to common stockholders	6,672	—
Allocation of net loss attributable to common stockholders for basic:		
Class A common stock	(1,268)	(59,042)
Class B common stock	(235,087)	—
Denominator:		
Weighted average shares used in computing net loss per share attributable to Class A common stockholders	4	1
Weighted average shares used in computing net loss per share attributable to Class B common stockholders	667,203	—
Basic net loss per share attributable to Class A	(317)	(59,042)
Basic net loss per share attributable to Class B	—	—

Diluted net loss per share is computed based on the weighted-average number of shares of common stock, including the dilutive effect of common stock equivalents, outstanding. Basic net loss per share was determined to be the same as diluted net loss per share for the three and six months ended June 30, 2021 as the inclusion of potentially dilutive shares would have been anti-dilutive.

For the three and six months ended June 30, 2021, the Company's diluted net loss per share of Class A common stock assumed the conversion of all Class B common stock into Class A common stock in accordance with the if-converted method. Additionally, the calculation of diluted net loss per share of Class B common stock did not differ from the calculation of basic net loss per share as the inclusion of potentially dilutive shares would have been anti-dilutive. The following tables sets forth the computation of diluted net loss per share of Class A common stock for the three and six months ended June 30, 2021 (in thousands, except for share amounts):

	Three months ended June 30, 2021		
	Net loss attributable to Class A common stock	Weighted average shares outstanding	Loss per share
Basic net loss per share	$ (41)	8	$ (5)
Add: The effect of dilutive potential Class A common stock			
Class B common stock on an as converted to Class A basis	(45,321)	8,881	
Diluted net loss per share attributable to Class A common stock	$ (45,362)	8,889	$ (5)

	Six months ended June 30, 2021		
	Net loss attributable to Class A common stock	Weighted average shares outstanding	Loss per share
Basic net loss per share	$ (1,268)	4	$ (317)
Add: The effect of dilutive potential Class A common stock			
Class B common stock on an as converted to Class A basis	(235,087)	6,672	
Diluted net loss per share attributable to Class A common stock	$ (236,355)	6,676	$ (317)

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:

	Three months ended June 30,	
	2021	2020
Outstanding options to purchase Class A common stock	121,965	122,000
Outstanding options to purchase Class B common stock	11,143,781	12,056,803
Redeemable convertible preferred stock (on an if-converted basis)	1,385,204	1,187,383
Total	12,650,950	13,366,186

	Six months ended June 30,	
	2021	2020
Outstanding options to purchase Class A common stock	121,965	122,000
Outstanding options to purchase Class B common stock	11,143,781	12,056,803
Redeemable convertible preferred stock (on an if-converted basis)	1,385,204	1,187,383
Total	12,650,950	13,366,186

14. Subsequent Events

Merger

On July 22, 2021, we consummated the transactions contemplated by that certain Agreement and Plan of Merger, dated as of February 9, 2021 (as amended, the “Merger Agreement”), by and among CMLS, S-IV Sub, Inc. (“Merger Sub”) and the Company. In particular, on July 22, 2021, we consummated the merger contemplated by the Merger Agreement, whereby Merger Sub merged with and into Sema4, with Sema4 surviving the merger as a wholly-owned subsidiary of CMLS. In connection with the consummation of the Business Combination, CMLS changed its name to “Sema4 Holdings Corp.” and Sema4 changed its name to “Sema4 OpCo, Inc.”

On July 22, 2021, the Company completed the Merger transaction as discussed in Note 1, and received net cash proceeds of $510 million. On July 23, 2021, Sema4’s shares of Class A common stock began trading on the Nasdaq Global Select Market under the ticker symbol “SMFR” and warrants under ticker symbol “SMFRW”.

The Merger will be accounted for as a reverse recapitalization in accordance with U.S. GAAP. Under this method of accounting, CMLS, who is the legal acquirer will be treated as the “acquired” company for financial reporting purposes and the Company will be treated as the accounting acquirer. Upon the consummation of the merger, CMLS changed its name to Sema4 Holdings Corp.

Pursuant to the Merger, the following occurred:

- Each share of Sema4 Class B common stock issued and outstanding immediately prior to the effective time was converted into 1/100th of a share of Sema4 Class A common stock ("Sema4 Common Stock") as set forth in the Merger Agreement
- Immediately thereafter, each share of Sema4 Common Stock and Sema4 Preferred Stock (other than Excluded Shares and Dissenting Shares (each as defined in the Merger Agreement) issued and outstanding immediately prior to the effective time was cancelled and automatically deemed for all purposes to represent the right to receive a portion of the merger consideration, with Sema4 equity holders (the "Sema4 equity holders") who had elected to receive Closing Available Cash (as defined in the Merger Agreement) receiving an aggregate of $231 million of cash and Sema4 equity holders receiving an aggregate of 178,336,298 shares of common stock of the post-combination company. Additionally, certain Sema4 equity holders became entitled to a pro rata share of 19,021,576 Earn-Out Shares, including Earn-Out RSUs, issuable pursuant to the terms of the Merger Agreement (the "Earnout") upon the achievement of certain vesting conditions.

Long-term Debt Payments

In July 2021, the Company terminated certain existing long-term debt arrangements in place by paying them off. Both 2020 Master Loan Agreement and 2020 Master Lease Agreement were fully paid off, totaling $9.1 million, including principal, interest and early payment penalties assessed pursuant to the terms of the agreements. As a result of these early payments, we expect to record a loss of approximately $0.3 million, which primarily relates to the early payment penalties.