

As filed with the Securities and Exchange Commission on October 25, 2021

Registration No. 333-

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

FORM S-8
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

SEMA4 HOLDINGS CORP.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction
of Incorporation or Organization)

85-1966622

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

333 Ludlow Street, North Tower, 8th Floor
Stamford, Connecticut 06902

(Address of Principal Executive Offices) (Zip Code)

SEMA4 HOLDINGS CORP. EARN-OUT RSU AWARDS
(Full Title of the Plans)

Eric Schadt

Chief Executive Officer

333 Ludlow Street, North Tower, 8th Floor
Stamford, Connecticut 06902

(Name and Address of Agent For Service)

(800) 298-6470

(Telephone Number, including area code, of agent for service)

Copies to:

Ethan Skerry
Per B. Chilstrom
Fenwick & West LLP
902 Broadway
New York, New York 10010
(212) 430-2600

Daniel Clark
General Counsel
Sema4 Holdings Corp.
333 Ludlow Street, North Tower, 8th Floor
Stamford, Connecticut 06902
(800) 298-6470

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

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 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Securities To Be Registered	Amount To Be Registered⁽¹⁾	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Class A Common Stock, par value \$0.0001 per share, issuable upon vesting of Earn-Out RSUs	841,844 ⁽²⁾	\$7.57 ⁽³⁾	\$6,372,760 ⁽³⁾	\$591

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement also covers such additional and indeterminate number of securities as may become issuable pursuant to the provisions of the Earn-Out RSUs (as defined below) by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the Registrant’s receipt of consideration which results in an increase in the number of outstanding shares of Class A common stock, par value \$0.0001 per share (the “Class A Common Stock”), of Sema4 Holdings Corp. (formerly, CM Life Sciences, Inc.), a Delaware corporation (the “Registrant”).
- (2) Represents shares of Class A Common Stock (the “Earn-Out RSU Shares”) issuable upon the vesting of certain RSU awards (the “Earn-Out RSUs”) that are expected to be granted to certain former equity award holders of Sema4 (as defined below) and certain employees of the Registrant pursuant to the terms of that certain Agreement and Plan of Merger, dated as of February 9, 2021 (as amended, the “Merger Agreement”), by and among CM Life Sciences, Inc., S-IV Sub, Inc. and Mount Sinai Genomics, Inc. d/b/a Sema4 (“Sema4”).
- (3) Estimated pursuant to Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee. The price of \$7.57 per share represents the average high and low sales prices of the Class A Common Stock as quoted on the Nasdaq Global Select Market on October 18, 2021.

The Registration Statement shall become effective upon filing in accordance with Rule 462 under the Securities Act.

EXPLANATORY NOTE

REGISTRATION OF ADDITIONAL SHARES PURSUANT TO GENERAL INSTRUCTION E OF FORM S-8

Sema4 Holdings Corp. (formerly, CM Life Sciences, Inc.), a Delaware corporation (the “Registrant”), initially registered pursuant to a Registration Statement on Form S-8 filed with the Securities and Exchange Commission (the “SEC”) on September 27, 2021 (Registration No. 333-259815) (including the Reoffer Prospectus contained therein, the “Prior Registration Statement”) 1,847,920 shares of Class A common stock, par value \$0.0001 per share (the “Class A Common Stock”), issuable upon the vesting of certain RSU awards (the “Earn-Out RSUs”) expected to be granted to certain former equity award holders of Sema4 (as defined below) and certain employees of the Registrant pursuant to the terms of that certain Agreement and Plan of Merger, dated as of February 9, 2021 (as amended, the “Merger Agreement”), by and among CM Life Sciences, Inc., S-IV Sub, Inc. and Mount Sinai Genomics, Inc. d/b/a Sema4 (“Sema4”).

Pursuant to General Instruction E of Form S-8, the Registrant is filing this Registration Statement on Form S-8 (this “Registration Statement”) with the SEC to register an additional 841,844 shares of Class A Common Stock (the “Earn-Out RSU Shares”) issuable upon the vesting of certain additional RSU awards (the “Earn-Out RSUs”) that are expected to be granted to certain former equity award holders of Sema4 and certain employees of the Registrant pursuant to the terms of the Merger Agreement. This Registration Statement hereby incorporates by reference the contents of the Prior Registration Statement, except to the extent supplemented, amended or superseded by the information set forth herein.

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
5.1	Opinion of Fenwick & West LLP.					X
23.1	Consent of WithumSmith+Brown, PC, Independent Registered Public Accounting Firm for CM Life Sciences, Inc.					X
23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm for Sema4 Holdings Corp.					X
23.3	Consent of Fenwick & West LLP (contained in Exhibit 5.1).					X
24.1	Power of Attorney (included on the signature page of this Registration Statement).					X

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Stamford, State of Connecticut, on the 25th day of October, 2021.

SEMA4 HOLDINGS CORP.

By: /s/ Eric Schadt
Eric Schadt
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Eric Schadt, Daniel Clark and Joshua Ruch, and each of them, as his or her true and lawful attorneys-in-fact, proxies and agents, each with full power of substitution and resubstitution and full power to act without the other, for him or her in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, proxies and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, proxies and agents, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Eric Schadt</u> Eric Schadt	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	October 25, 2021
<u>/s/ Isaac Ro</u> Isaac Ro	Chief Financial Officer <i>(Principal Financial Officer)</i>	October 25, 2021
<u>/s/ Shawn Assad</u> Shawn Assad	Chief Accounting Officer <i>(Principal Accounting Officer)</i>	October 25, 2021
<u>/s/ Joshua Ruch</u> Joshua Ruch	Chairman and Director	October 25, 2021
<u>/s/ Dennis Charney</u> Dennis Charney	Director	October 25, 2021
<u>/s/ Eli D. Casdin</u> Eli D. Casdin	Director	October 25, 2021
<u>/s/ Emily Leproust</u> Emily Leproust	Director	October 25, 2021
<u>/s/ Jason Ryan</u> Jason Ryan	Director	October 25, 2021
<u>/s/ Michael Pellini</u> Michael Pellini	Director	October 25, 2021
<u>/s/ Nat Turner</u> Nat Turner	Director	October 25, 2021
<u>/s/ Rachel Sherman</u> Rachel Sherman	Director	October 25, 2021

October 25, 2021

Sema4 Holdings Corp.
333 Ludlow Street, North Tower, 8th Floor
Stamford, Connecticut

Ladies and Gentlemen:

At your request, as your counsel, we have examined the Registration Statement on Form S-8 (the “**Registration Statement**”) to be filed by Sema4 Holdings Corp., a Delaware corporation (the “**Company**”), with the Securities and Exchange Commission (the “**Commission**”) on or about October 25, 2021 in connection with the registration under the Securities Act of 1933, as amended (the “**Securities Act**”), of an aggregate of 841,844 shares (the “**Shares**”) of the Company’s Class A Common Stock, \$0.0001 par value per share (the “**Common Stock**”), subject to issuance by the Company upon the vesting of certain RSU awards (the “**Earn-Out RSUs**”) that are expected to be granted to certain former equity award holders of Sema4 (as defined below) and certain employees of the Company pursuant to the terms of that certain Agreement and Plan of Merger, dated as of February 9, 2021 (as amended, the “**Merger Agreement**”), by and among CM Life Sciences, Inc., S-IV Sub, Inc. and Mount Sinai Genomics, Inc. d/b/a Sema4 (“**Sema4**”).

At your request we are providing this letter to express our opinion on the matters set forth below in this letter (“**our opinion**”).

In connection with our opinion, we have examined such matters of fact as we have deemed necessary, which included examination of originals or copies of: (a) the Company’s Amended and Restated Certificate of Incorporation and Restated Bylaws (collectively, the “**Charter Documents**”), the form of Earn-Out RSU, the Registration Statement and the exhibits thereto, (b) certain corporate proceedings of the Company’s board of directors (the “**Board**”) and the Company’s stockholders relating to adoption or approval of the Company Charter Documents, the Earn-Out RSUs, the reservation of the Shares for sale and issuance, the filing of the Registration Statement, and the registration of the Shares under the Securities Act and documents regarding the Company’s outstanding and reserved capital stock and other securities, and (c) such other documents as we have deemed advisable, and we have examined such questions of law as we have considered necessary.

In our examination of documents for purposes of this opinion, we have assumed, and express no opinion as to, the authenticity and completeness of all documents submitted to us as originals, the genuineness of signatures on documents reviewed by us, the conformity to originals and the completeness of all documents submitted to us as copies, the legal capacity of all parties executing any documents (other than the Company), the lack of any undisclosed termination or modification or waiver of any document, the absence of any extrinsic agreements or documents that might change or affect the interpretation or terms of documents, and the due authorization, execution and delivery of all documents by each party thereto other than the Company. We have also assumed that any certificates or instruments representing the Shares, when issued, will be executed by the Company and by officers of the Company duly authorized to do so. In rendering our opinion, we have also relied upon a certificate of good standing issued by the Delaware Secretary of State with respect to the Company and representations and certifications made to us by the Company, including without limitation representations in a Management Certificate addressed to us of even date herewith that the Company has available a sufficient number of authorized shares of Common Stock that are not currently outstanding or reserved for issuance under

other outstanding securities or plans of the Company, to enable the Company to issue and deliver all of the Shares as of the date of this letter.

We render this opinion only with respect to, and we express no opinion herein concerning the application or effect of the laws of any jurisdiction other than, the existing Delaware General Corporation Law now in effect. We express no opinion with respect to the securities or “blue sky” laws of any state.

Based upon, and subject to, the foregoing, it is our opinion that the Shares have been duly authorized and, when the Shares that may be issued and sold upon the vesting of Earn-Out RSUs to be granted pursuant to the Merger Agreement, have been issued and sold by the Company against the Company’s receipt of payment therefor (in an amount and type of consideration not less than the par value per Share) in accordance with the terms (including, without limitation, payment and authorization provisions) of the applicable Earn-Out RSU, and have been duly registered on the books of the transfer agent and registrar for the Shares in the name or on behalf of the holders thereof, such Shares will be validly issued, fully paid and non-assessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us, if any, in the Registration Statement and any amendments or supplements thereto. We do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder. This opinion is intended solely for use in connection with the issuance, sale and resale of the Shares subject to the Registration Statement, and is not to be relied upon for any other purpose. In providing this letter, we are opining only as to the specific legal issues expressly set forth above, and no opinion shall be inferred as to any other matter or matters. This opinion is rendered on, and speaks only as of, the date of this letter first written above, and does not address any potential change in facts or law that may occur after the date of this opinion letter. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention, whether or not such occurrence would affect or modify any of the opinions expressed herein.

Very truly yours,

/s/ Fenwick & West LLP

FENWICK & WEST LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated May 4, 2021, relating to the financial statements of CM Life Sciences, Inc. We also consent to the reference to our Firm under the caption “Experts” in the Prospectus.

/s/ WithumSmith+Brown, PC

New York, New York

October 25, 2021

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in the Registration Statement (Form S-8) pertaining to the Sema4 Holdings Corp. 2021 Equity Incentive Plan, Sema4 Holdings Corp. 2021 Employee Stock Purchase Plan, Mount Sinai Genomics, Inc. dba Sema4 2017 Equity Incentive Plan, and Sema4 Holdings Corp. Earn-out RSU awards and to the use and incorporation by reference therein of our report dated May 6, 2021, with respect to the financial statements of Mount Sinai Genomics, Inc. included in the Current Report on Form 8-K/A of Sema4 Holding Corp., filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

New York, NY
October 25, 2021