

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

**POST-EFFECTIVE AMENDMENT NO. 2
TO
FORM S-1 ON
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

eFFECTOR THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

85-3306396
(I.R.S. Employer
Identification Number)

142 North Cedros Avenue, Suite B
Solana Beach, California 92075
(858) 925-8215
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Stephen T. Worland, Ph.D.
Chief Executive Officer
eFFECTOR Therapeutics, Inc.
142 North Cedros Avenue, Suite B
Solana Beach, California 92075
(858) 925-8215
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
Cheston Larson
Matthew T. Bush
Latham & Watkins LLP
12670 High Bluff Drive
San Diego, California 92130
(858) 523-5400

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

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

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

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 Securities Act. ☐

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

The original registration statement (the “Existing Registration Statement”) of eFFECTOR Therapeutics, Inc. (“eFFECTOR”) on Form S-1 (File No. 333-259751) declared effective by the Securities and Exchange Commission (the “SEC”) on October 5, 2021, to which this Registration Statement is a Post-Effective Amendment No. 2 (this “Registration Statement”), covered: (i) the resale of 28,528,874 shares of common stock, par value \$0.0001 per share (the “Common Stock”), issued in connection with the Business Combination (as defined below) by certain of the selling securityholders named in this prospectus (each a “Selling Securityholder” and, collectively, the “Selling Securityholders”); (ii) the resale of 4,600,286 earn-out shares of Common Stock (the “Earn-out Shares”) that may be issued in certain circumstances in accordance with the terms of the Merger Agreement (as defined below) by certain of the Selling Securityholders; (iii) the resale of 6,070,003 shares of Common Stock issued in the PIPE Investment (as defined below) by certain of the Selling Securityholders; (iv) the issuance by us and resale of 3,920,657 shares of Common Stock reserved for issuance upon the exercise of options to purchase Common Stock; (v) the resale of 4,056,250 shares of Common Stock issued to Locust Walk Sponsor, LLC (the “Sponsor”) prior to the Business Combination; and (vi) the issuance by us of up to 6,015,000 shares of Common Stock upon the exercise of outstanding warrants to purchase Common Stock (the “Warrants”), which includes 5,833,333 warrants (the “Public Warrants”) issued to investors in our initial public offering (“IPO”) and 181,667 warrants (the “Private Placement Warrants”) issued to the Sponsor in a private placement in connection with our IPO.

This Post-Effective Amendment No. 2 to the Existing Registration Statement (a) is being filed to convert the registration statement on Form S-1 into a registration statement on Form S-3 and (b) contains an updated prospectus relating to the offering and sale of (i) the shares of outstanding Common Stock covered by the Existing Registration Statement, (ii) the shares Common Stock remaining available for issuance under the Existing Registration Statement upon exercise of the Public Warrants and/or Private Placement Warrants and (iii) the Private Placement Warrants. This Registration Statement amends and restates the information contained in the Existing Registration Statement (and all amendments thereto) under the headings contained herein.

All filing fees payable in connection with the registration of the shares of Common Stock and the Private Placement Warrants covered by this Registration Statement were paid by the Registrant at the time of the initial filing of the Existing Registration Statement. No additional securities are registered hereby.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED SEPTEMBER 1, 2022



**33,015,778 SHARES OF COMMON STOCK
UP TO 181,667 WARRANTS
UP TO 6,014,990 SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF WARRANTS**

This prospectus relates to: (i) the resale of 17,455,611 shares of common stock, par value \$0.0001 per share (the “Common Stock”), issued in connection with the Business Combination (as defined below) by certain of the selling securityholders named in this prospectus (each a “Selling Securityholder” and, collectively, the “Selling Securityholders”); (ii) the resale of 2,937,144 earn-out shares of Common Stock (the “Earn-out Shares”) that may be issued in certain circumstances in accordance with the terms of the Merger Agreement (as defined below) by certain of the Selling Securityholders; (iii) the resale of 4,742,176 shares of Common Stock issued in the PIPE Investment (as defined below) by certain of the Selling Securityholders; (iv) the issuance by us and resale of 3,824,597 shares of Common Stock reserved or issuance upon the exercise of options to purchase Common Stock; (v) the resale of 4,056,250 shares of Common Stock issued to Locust Walk Sponsor, LLC (the “Sponsor”) prior to the Business Combination; and (vi) the issuance by us of up to 6,014,990 shares of Common Stock upon the exercise of outstanding warrants to purchase Common Stock (the “Warrants”), which includes 5,833,323 warrants (the “Public Warrants”) issued to investors in our initial public offering (“IPO”) and 181,667 warrants (the “Private Placement Warrants”) issued to the Sponsor in a private placement in connection with our IPO. We will receive the proceeds from any exercise of any Warrants for cash. This prospectus also relates to the resale of the Private Placement Warrants by the holders thereof.

We are registering the securities for resale pursuant to the Selling Securityholders’ registration rights under certain agreements between us and the Selling Securityholders. Our registration of the securities covered by this prospectus does not mean that the Selling Securityholders will offer or sell any of the shares of Common Stock or Warrants. The Selling Securityholders may offer, sell or distribute all or a portion of their shares of Common Stock or Warrants publicly or through private transactions at prevailing market prices or at negotiated prices. We provide more information about how the Selling Securityholders may sell the shares of Common Stock or Warrants in the section entitled “Plan of Distribution.” We will receive the proceeds from any exercise of the Warrants or options for cash, but not from the resale of the shares of Common Stock or Warrants by the Selling Securityholders.

We are an “emerging growth company” as defined in Section 2(a) of the Securities Act of 1933, as amended (the “Securities Act”), and are subject to reduced public company reporting requirements. This prospectus complies with the requirements that apply to an issuer that is an emerging growth company.

Our Common Stock and Warrants are listed on the Nasdaq Capital Market (“Nasdaq”) under the symbols “EFTR” and “EFTRW,” respectively. On August 30, 2022, the closing price of our Common Stock was \$0.60 per share and the closing price for our Warrants was \$0.13 per Warrant.

We will bear all costs, expenses and fees in connection with the registration of the shares of Common Stock and Private Placement Warrants. The Selling Securityholders will bear all commissions and discounts, if any, attributable to their sales of the shares of Common Stock or Private Placement Warrants.

Our business and investment in our Common Stock and Warrants involve significant risks. These risks are described in the section titled “[Risk Factors](#)” beginning on page 3 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. By using a shelf registration statement, the Selling Securityholders named in this prospectus may, from time to time, sell the securities described in this prospectus from time to time in one or more offerings as described in this prospectus. To the extent necessary, each time that the Selling Securityholders offer and sell securities, we or the Selling Securityholders may provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold and the specific terms of that offering. To the extent permitted by law, we may also authorize one or more free writing prospectuses that may contain material information relating to these offerings. Such prospectus supplement or free writing prospectus may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or free writing prospectus, you should rely on the prospectus supplement or free writing prospectus, as applicable. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement (and any applicable free writing prospectuses), together with the additional information described under the heading “Where You Can Find More Information; Incorporation by Reference.”

Neither we nor the Selling Securityholders have authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus, any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. Neither we nor the Selling Securityholders take any responsibility for, nor provide any assurance as to the reliability of, any other information that others may give you. Neither we nor the Selling Securityholders will make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate only as of the date on its respective cover, that the information appearing in any applicable free writing prospectus is accurate only as of the date of that free writing prospectus, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, neither we nor the Registered Holders guarantee the accuracy or completeness of this information and neither we nor the Registered Holders have independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus, any prospectus supplement or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus, any applicable prospectus supplement and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

As used in this prospectus, unless otherwise indicated or the context otherwise requires, the terms “we,” “our,” “us” and the “Company” mean eFFECTOR Therapeutics, Inc. and its subsidiaries, which was a special purpose acquisition company called “Locust Walk Acquisition Corp.” prior to the closing of the Business Combination. When we refer to “you,” we mean the potential holders of the shares of our common stock or warrants to purchase shares of our common stock.

In this prospectus, we refer to our common stock and warrants to purchase shares of common stock, collectively, as “securities.”

WHERE YOU CAN FIND MORE INFORMATION;

INCORPORATION BY REFERENCE

Available Information

We file reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information about issuers, including us, who file electronically with the SEC. The address of that website is <http://www.sec.gov>.

Our website address is www.effector.com. The information on our website, however, is not, and should not be deemed to be, a part of this prospectus.

This prospectus and any prospectus supplement are part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement through the SEC's website, as provided above.

Incorporation by Reference

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in this prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or a subsequently filed document incorporated by reference modifies or replaces that statement.

This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on March 16, 2022;
- the information specifically incorporated by reference into our Annual Report on Form 10-K from our [Definitive Proxy Statement](#) on Schedule 14A, filed with the SEC on April 20, 2022;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2022 and June 30, 2022 filed with the SEC on [May 10, 2022](#) and [August 9, 2022](#), respectively;
- our Current Reports on Form 8-K filed with the SEC on [January 24, 2022](#), [February 16, 2022](#), [February 24, 2022](#), [March 28, 2022](#), [April 4, 2022](#), [May 26, 2022](#), [June 6, 2022](#), [June 10, 2022](#), [July 15, 2022](#) and [September 1, 2022](#); and
- the description of our common stock contained in the registration statement on [Form 8-A](#), filed with the SEC on January 7, 2021, and any amendment or report filed with the SEC for the purpose of updating the description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, which we refer to as the "Exchange Act" in this prospectus, prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

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You may request a free copy of any of the documents incorporated by reference in this prospectus (other than exhibits, unless they are specifically incorporated by reference in the documents) by writing or telephoning us at the following address:

eFFECTOR Therapeutics, Inc.
Attention: Corporate Secretary
142 North Cedros Avenue, Suite B
Solana Beach, California 92075
(858) 925-8215

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus or any accompanying prospectus supplement.

THE COMPANY

We are a clinical-stage biopharmaceutical company pioneering the development of a new class of oncology drugs we refer to as STRIs. Translation is the process in cells whereby the synthesis of proteins is directed by information contained in genetic sequences. We utilized our proprietary selective translation regulation technology platform to internally discover a portfolio of small molecule STRI product candidates. Our product candidates target the eIF4F complex and its activating kinase, mitogen-activated protein kinase interacting kinase (MNK). The eIF4F complex is a central node where two of the most frequently mutated signaling pathways in cancer, the PI3K-AKT and RAS-MEK pathways, converge to activate the translation of select mRNA into proteins that are frequent culprits in key disease-driving processes. Inhibition of eIF4F components or MNK simultaneously downregulates multiple disease-driving proteins before they are synthesized. Each of our product candidates is designed to act on a single protein that drives the expression of a network of multiple functionally related proteins, including oncoproteins, immunosuppressive proteins in T cells and proteins known to drive drug resistance that together control tumor growth, survival and immune evasion.

Our lead product candidate, tomivosertib, is an oral small-molecule inhibitor of MNK that we are developing in combination with inhibitors of anti-PD-(L)1 therapy, for the treatment of patients with solid tumors. In June 2021, we initiated dosing in KICKSTART, our randomized Phase 2b clinical trial evaluating tomivosertib in combination with pembrolizumab in patients with metastatic non-small cell lung cancer (NSCLC). We updated our trial design to focus on the largest segment of that market, patients who are undergoing their initial, or frontline, course of treatment. The revised trial includes the following two cohorts: (1) “PD-L1 $\geq 50\%$ cohort”, for patients with PD-(L)1 expression $\geq 50\%$ who will receive tomivosertib or placebo in combination with pembrolizumab as their initial therapy; and (2) a new “PD-L1 $\geq 1\%$ cohort” for patients with PD-(L)1 expression $\geq 1\%$ who will receive tomivosertib or placebo in combination with pembrolizumab as maintenance therapy immediately after completing the platinum-based chemotherapy doublet phase of their frontline treatment without disease progression. We anticipate reporting topline data from both cohorts in the first half of 2023. Our second product candidate, zotatifin, is an inhibitor of eIF4A, a component of the eIF4F complex, and is currently being evaluated in a Phase 1/2 clinical trial in patients with certain solid tumors. We have completed the Phase 1 portion of this trial and are currently enrolling patients in multiple Phase 2a open-label expansion cohorts in biomarker-selected patients with tumors driven by multiple proteins shown in our preclinical studies to be downregulated by zotatifin. In June 2022, we reported positive interim results from the Phase 1/2 dose escalation and expansion trial, with such results showing that zotatifin was generally well tolerated, resulted in suppression of a select set of oncogenic drivers, and demonstrated initial signals of clinical activity in patients with breast cancer. Based on zotatifin’s mechanism and results observed to date, we’ve expanded the cohort evaluating zotatifin in combination with fulvestrant in ER+ breast cancer to 18 patients. In addition, a new cohort evaluating zotatifin in combination with fulvestrant in ER+ breast cancer patients with Cyclin D1 amplification is being planned. We anticipate reporting topline data from current expansion cohorts by the end of 2022, as well as initial overall response data from the Cyclin D1 amplified ER+ breast cancer cohort in the first half of 2023. We are also conducting a Phase 1b clinical trial evaluating zotatifin as an antiviral agent against SARS-CoV-2. We have entered into a global research collaboration and license agreement with Pfizer for our earliest stage program, inhibitors of eIF4E, and Pfizer is currently conducting IND-enabling studies for this program.

We were incorporated as Locust Walk Acquisition Corp. on October 2, 2020. On August 25, 2021 (the “Closing Date”), we consummated the previously announced merger pursuant to that certain Merger Agreement (“Merger Agreement”), dated as of May 26, 2021, by and among us (formerly known as Locust Walk Acquisition Corp.), eFFECTOR Therapeutics Operations, Inc. (formerly known as eFFECTOR Therapeutics, Inc.) (“Old eFFECTOR”), and Locust Walk Merger Sub, Inc. (Merger Sub), pursuant to which Merger Sub merged with and into Old eFFECTOR, with Old eFFECTOR becoming our wholly owned subsidiary (the “Business Combination”). Pursuant to subscription agreements entered into in connection with the Merger Agreement (collectively, the “Subscription Agreements”), certain Selling Securityholders agreed to subscribe for an aggregate of 6,070,003 newly-issued shares of Common Stock at a purchase price of \$10.00 per share for an aggregate purchase price of \$60.7 million (the “PIPE Investment”). On the Closing Date, we consummated the PIPE Investment and we also changed our name to eFFECTOR Therapeutics, Inc. Our principal executive offices are located at 142 North Cedros Avenue, Suite B, Solana Beach, California 92075, and our telephone number is (858) 925-8215.

THE OFFERING	
Issuer	eFFECTOR Therapeutics, Inc.
Shares of Common Stock to be Issued by Us upon Exercise of All Warrants	6,014,990 shares
Securities Offered by the Selling Securityholders	Up to (i) 33,015,778 shares of common stock, (ii) 181,667 warrants to purchase shares of common stock and (iii) 6,014,990 shares of common stock underlying warrants.
Use of Proceeds	<p>All of the shares of common stock and warrants offered by the Selling Securityholders will be sold by them for their respective accounts. We will not receive any of the proceeds from these sales.</p> <p>We will receive any proceeds from the exercise of the warrants for cash, but not from the sale of the shares of common stock issuable upon such exercise.</p>
Market for Securities	Our common stock and warrants are listed on the Nasdaq Capital Market (“Nasdaq”) under the symbols “EFTR” and “EFTRW”, respectively.
Risk Factors	Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page 3 of this prospectus for a discussion of factors you should carefully consider before investing in our securities.

RISK FACTORS

Investment in any securities offered pursuant to this prospectus and the applicable prospectus supplement involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K we file after the date of this prospectus, and all other information contained in or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in the applicable prospectus supplement and any applicable free writing prospectus before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares of Common Stock or Warrants by the Selling Securityholders.

The Selling Securityholders will pay all incremental selling expenses relating to the sale of their shares of Common Stock and Warrants, including underwriters' or agents' commissions and discounts, brokerage fees, underwriter marketing costs and all reasonable fees and expenses of any legal counsel representing the Selling Securityholders, except that we will pay the reasonable fees and expenses of one legal counsel for the Selling Securityholders, in the event of an underwritten offering of their securities. We will bear all other costs, fees and expenses incurred in effecting the registration of the securities covered by this prospectus, including, without limitation, all registration and filing fees, printing and delivery fees, Nasdaq listing fees and fees and expenses of our counsel and our accountants.

We will receive the proceeds from any exercise of Warrants for cash. We intend to use the proceeds the exercise of Warrants for cash for general corporate and working capital purposes.

DESCRIPTION OF SECURITIES

General

The following description summarizes some of the terms of our capital stock and warrants. Because it is only a summary, it does not contain all the information that may be important to you and is subject to and qualified in its entirety by reference to our amended and restated certificate of incorporation (“Certificate of Incorporation”), amended and restated bylaws (“Bylaws”) and the warrant agreement, which are filed as exhibits to our most recent Annual Report on Form 10-K and are incorporated by reference herein. We encourage you to read our certificate of incorporation, our bylaws and the warrant agreement for additional information.

As of June 30, 2022, our authorized capital stock consisted of 1,000,000,000 shares of common stock, \$0.0001 par value per share, and 100,000,000 shares of preferred stock, \$0.0001 par value per share.

Description of Common Stock

Voting Rights

Each holder of our Common Stock is entitled to one vote for each share of our Common Stock held of record by such holder on all matters voted upon by our stockholders, provided, however, that, except as otherwise required in the Certificate of Incorporation or by applicable law, the holders of our Common Stock will not be entitled to vote on any amendment to our Certificate of Incorporation that relates solely to the terms of one or more outstanding series of our preferred stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to our Certificate of Incorporation (including any certificate of designation relating to any series of our preferred stock) or pursuant to the Delaware General Corporation Law (the “DGCL”).

Dividend Rights

Subject to any other provisions of the Certificate of Incorporation, as it may be amended from time to time, holders of shares of our Common Stock will be entitled to receive ratably, in proportion to the number of shares of our Common Stock held by them, such dividends and other distributions in cash, stock or property when, as and if declared thereon by our board of directors (the “Board”) from time to time out of assets or funds legally available therefor.

Rights upon Liquidation

Upon our liquidation, dissolution or winding up of our affairs, whether voluntary or involuntary, after payment or provision for payment of our debts and any other payments required by law and amounts payable upon shares of preferred stock ranking senior to the shares of Common Stock upon such dissolution, liquidation or winding up, if any, our remaining net assets will be distributed to the holders of shares of Common Stock upon such dissolution, liquidation or winding up, pro rata on a per share basis.

Other Rights

Holders of our Common Stock do not have preemptive, subscription, redemption or conversion rights. There are no redemption provisions or sinking fund provisions applicable to the Common Stock.

The rights, powers, preferences and privileges of holders of the Common Stock are subject to those of the holders of any shares of our preferred stock that the Board may authorize and issue in the future.

Preferred Stock

Under the terms of the certificate of incorporation, our Board has the authority to issue shares of preferred stock from time to time on terms it may determine, to divide shares of preferred stock into one or more series and to fix the designations, preferences, privileges, and restrictions of preferred stock, including dividend rights,

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conversion rights, voting rights, terms of redemption, liquidation preference and the number of shares constituting any series or the designation of any series to the fullest extent permitted by the DGCL. The issuance of our preferred stock could have the effect of decreasing the trading price of our Common Stock, restricting dividends on our capital stock, diluting the voting power of our Common Stock, impairing the liquidation rights of our capital stock, or delaying or preventing a change in control of the company.

The purpose of authorizing our Board to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of the outstanding voting stock. Additionally, the issuance of preferred stock may adversely affect the holders of Common Stock by restricting dividends on the Common Stock, diluting the voting power of the Common Stock or subordinating the liquidation rights of the Common Stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of the Common Stock.

Dividends

Declaration and payment of any dividend is subject to the discretion of our Board. The time and amount of dividends will be dependent upon, among other things, our business prospects, results of operations, financial condition, cash requirements and availability, debt repayment obligations, capital expenditure needs, contractual restrictions, covenants in the agreements governing current and future indebtedness, industry trends, the provisions of Delaware law affecting the payment of dividends and distributions to stockholders and any other factors or considerations our Board may regard as relevant.

We have never declared or paid any cash dividends on our capital stock. We intend to retain future earnings, if any, to finance the operation of our business and do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our Board after considering our financial condition, results of operations, capital requirements, business prospects and other factors the Board deems relevant, and subject to the restrictions contained in any future financing instruments. In addition, our loan and security agreement with Oxford Finance LLC governing our indebtedness contains restrictions on our ability to declare and pay cash dividends on our capital stock.

Election of Directors and Vacancies

The number of directors of the Board shall be fixed solely and exclusively by resolution duly adopted from time to time by the Board. The Board is divided into three classes, designated Class I, II and III, with Class I consisting of three directors, Class II consisting of three directors, and Class III consisting of three directors. Each class of directors will be elected by our stockholders every three years.

Under the bylaws, at all meetings of stockholders called for the election of directors, a plurality of the votes properly cast will be sufficient to elect such directors to the Board.

Except as the DGCL may otherwise require and subject to the rights, if any, of the holders of any series of preferred stock, in the interim between annual meetings of stockholders or special meetings of stockholders called for the election of directors and/or the removal of one or more directors and the filling of any vacancy in that connection, newly created directorships and any vacancies on the Board, including unfilled vacancies resulting from the removal of directors, may be filled only by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum, or by a sole remaining director. All directors will hold office until the expiration of their respective terms of office and until their successors will have been elected and qualified. A director elected or appointed to fill a vacancy resulting from the death, resignation or removal of a

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director or a newly created directorship will serve for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred and until his or her successor will have been elected and qualified.

Subject to the rights, if any, of any series of our preferred stock, any director may be removed from office only with cause and only by the affirmative vote of the holders of at least two-thirds (66 2/3%) of our outstanding voting stock then entitled to vote at an election of directors. In case the Board or any one or more directors should be so removed, new directors may be elected at the same time for the unexpired portion of the full term of the director or directors so removed.

In addition to the powers and authorities hereinbefore or by statute expressly conferred upon them, the directors are empowered to exercise all such powers and do all such acts and things as may be exercised or done by us, subject, nevertheless, to the provisions of the DGCL, our certificate of incorporation and to any bylaws adopted and in effect from time to time; provided, however, that no bylaw so adopted will invalidate any prior act of the directors which would have been valid if such bylaw had not been adopted.

Notwithstanding the foregoing provisions, any director elected pursuant to the right, if any, of the holders of preferred stock to elect additional directors under specified circumstances will serve for such term or terms and pursuant to such other provisions as specified in the relevant certificate of designations related to the preferred stock.

Quorum

The holders of a majority of the voting power of the capital stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, will constitute a quorum at all meetings of the stockholders for the transaction of business, except as otherwise required by law or provided by our certificate of incorporation. If, however, such quorum will not be present or represented at any meeting of the stockholders, the holders of a majority of the voting power present in person or represented by proxy, will have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum will be present or represented. At such adjourned meeting at which a quorum will be present or represented, any business may be transacted which might have been transacted at the meeting as originally noticed. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting will be given to each stockholder entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting.

Registration Rights

Pursuant to the Amended and Restated Registration Rights Agreement, dated August 25, 2021, by and among the Company, eFFECTOR Therapeutics Operations, Inc., Locust Walk Sponsor, LLC and certain stockholders (the “Amended and Restated Registration Rights Agreement”) we agreed, among other things, to register for resale, pursuant to Rule 415 under the Securities Act of 1933, as amended (the “Securities Act”), certain shares of our Common Stock and other equity securities that are held by the parties to the agreement. Pursuant to the Registration Rights Agreement, we were obligated to file this registration statement to register the resale of certain of our securities. In addition, subject to certain requirements and customary conditions, including with regard to the number of demand rights that may be exercised, the Holders may demand at any time or from time to time, to sell all or any portion of their registrable securities in an underwritten offering so long as the total offering price is reasonably expected to exceed \$50 million. The Amended and Restated Registration Rights Agreement also provide the Holders with “piggy-back” registration rights, subject to certain requirements and customary conditions.

We have agreed to pay all expenses in connection with this offering, other than underwriting commissions and discounts, brokerage fees, underwriter marketing costs, and certain legal expenses. The Holders will pay any underwriting commissions and discounts, brokerage fees, underwriter marketing costs, and certain legal expenses

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relating to the offering. The Amended and Restated Registration Rights Agreement contains customary cross-indemnification provisions, under which we agreed to indemnify Holders in the event of material misstatements or omissions in the registration statement attributable to us, and Holders are obligated to indemnify us for material misstatements or omissions attributable to them.

Pursuant to the Amended and Restated Registration Rights Agreement, the securities will cease to be registrable securities upon the earlier of (i) the date on which such securities have been sold pursuant to an effective registration statement, (ii) the date as of which such securities shall have been otherwise transferred, new certificates for such securities not bearing a legend restricting further transfer shall have been delivered to us and subsequent public distribution of such securities shall not require registration under the Securities Act, (iii) the date as of which such securities have ceased to be outstanding, (iv) the date as of which such registrable securities may be sold without registration pursuant to Rule 144 under the Securities Act (but with no volume, current public information or other requirements, restrictions or limitations) and (v) the date as of which such securities have been sold to, or through, a broker, dealer or underwriter in a public distribution or other public securities transaction.

Pursuant to the Amended and Restated Registration Rights Agreement, which sets forth our registration obligations with respect to the resale of the shares of Common Stock or any other equity securities of the Company (including the Warrants) held by the selling stockholders as of August 24, 2021, other than 6,070,003 newly-issued shares of Common Stock sold at a purchase price of \$10.00 per share for an aggregate purchase price of \$60.7 million (the “PIPE Investment”), we have agreed to maintain the effectiveness of this registration statement (or an alternative registration statement covering the resale of such shares) until the earlier of (i) August 21, 2024, or (ii) the date as of which: (a) such securities have either been sold pursuant to a registration statement or cease to be registrable securities or (b) such securities may be sold without registration under Rule 144 without limitations as to the manner of sale or the amount of such securities that may be sold and without the requirement for us to be in compliance with the current public information requirements under Rule 144.

We have also agreed to register the resale of shares issued in the PIPE Investment pursuant to certain subscription agreements (the “Subscription Agreements”). Pursuant to the Subscription Agreements, which set forth our registration obligations with respect to the resale of the shares of Common Stock issued in the PIPE Investment, we have agreed to use commercially reasonable efforts to maintain the effectiveness of this registration statement (or an alternative registration statement covering the resale of such shares) until the earlier of (i) August 25, 2024, (ii) the date on which all such shares of Common Stock have been sold or (iii) the date on which all such shares of Common Stock can be sold under Rule 144 without limitations as to the manner of sale or the amount of such securities that may be sold and without the requirement for us to be in compliance with the current public information requirements under Rule 144.

Pursuant to the Warrants, which sets forth our registration obligations with respect to the issuance of shares of Common Stock upon exercise of the Warrants, we have agreed to use our best efforts to maintain the effectiveness of this registration statement (or an alternative registration statement covering the resale of such shares) until the expiration of the Warrants.

Anti-takeover Effects of the Certificate of Incorporation and the Bylaws

Our Certificate of Incorporation and Bylaws contain provisions that may delay, defer or discourage another party from acquiring control of us. We expect that these provisions, which are summarized below, will discourage coercive takeover practices or inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with the Board, which we believe may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give the Board the power to discourage acquisitions that some stockholders may favor.

Classified Board of Directors

Our Certificate of Incorporation provides that the Board is divided into three classes of directors, with each class of directors being elected by our stockholders every three years. The classification of directors will have the effect of making it more difficult for stockholders to change the composition of the Board.

Authorized but Unissued Capital Stock

Delaware law does not require stockholder approval for any issuance of authorized shares. However, the listing requirements of Nasdaq, which apply if and so long as the Common Stock (or Warrants) remains listed on Nasdaq, require stockholder approval of certain issuances equal to or exceeding 20% of the then outstanding voting power or then outstanding number of shares of Common Stock. Additional shares that may be issued in the future may be used for a variety of corporate purposes, including future public offerings, to raise additional capital or to facilitate acquisitions.

One of the effects of the existence of unissued and unreserved Common Stock may be to enable the Board to issue shares to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise and thereby protect the continuity of management and possibly deprive stockholders of opportunities to sell their shares of Common Stock at prices higher than prevailing market prices.

Special Meeting, Action by Written Consent and Advance Notice Requirements for Stockholder Proposals

Unless otherwise required by law, and subject to the rights, if any, of the holders of any series of preferred stock, special meetings of our stockholders, for any purpose or purposes, may be called only by or at the direction of (i) a majority of the Board, (ii) the chairperson of the Board, (iii) the Chief Executive Officer, or (iv) the President. Unless otherwise required by law, written notice of a special meeting of stockholders, stating the time, place and purpose or purposes thereof, shall be given to each stockholder entitled to vote at such meeting, not less than 10 or more than 60 days before the date fixed for the meeting. Business transacted at any special meeting of stockholders will be limited to the purposes stated in the notice.

In addition, our Bylaws require advance notice procedures for stockholder proposals to be brought before an annual meeting of the stockholders, including the nomination of directors. Stockholders at an annual meeting may only consider the proposals specified in the notice of meeting or brought before the meeting by or at the direction of the Board, or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered a timely written notice in proper form to our secretary, of the stockholder's intention to bring such business before the meeting.

These provisions could have the effect of delaying until the next stockholder meeting any stockholder actions, even if such actions are favored by the holders of a majority of our outstanding voting securities.

Amendment of the Certificate of Incorporation and Bylaws

The DGCL provides generally that the affirmative vote of a majority of the outstanding stock entitled to vote on amendments to a corporation's certificate of incorporation or bylaws is required to approve such amendment, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage.

Our Certificate of Incorporation provides that the following provisions therein may be amended, altered, repealed or rescinded only by the affirmative vote of the holders of at least two-thirds (66 2/3%) in voting power of all the then outstanding shares of Common Stock entitled to vote thereon as a class:

- the provisions regarding our preferred stock;
- the provisions regarding the size, classification, appointment, removal and authority of the Board;

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- the provisions prohibiting stockholder actions without a meeting;
- the provisions regarding calling special meetings of stockholders;
- the provisions regarding the selection of certain forums for certain specified legal proceedings between our company and our stockholders; and
- the provisions regarding the limited liability of our directors.

Our Bylaws may be amended or repealed (A) by the affirmative vote of a majority of the entire Board then in office (subject to any bylaw requiring the affirmative vote of a larger percentage of the members of the Board), or (B) without the approval of the Board, by the affirmative vote of the holders of two-thirds (66 2/3%) of our outstanding voting stock entitled to vote generally in an election of directors, voting together as a single class.

Delaware Anti-Takeover Statute

Section 203 of the DGCL provides that if a person acquires 15% or more of the voting stock of a Delaware corporation, such person becomes an “interested stockholder” and may not engage in certain “business combinations” with the corporation for a period of three years from the time such person acquired 15% or more of the corporation’s voting stock, unless:

- (1) the board of directors approves the acquisition of stock or the merger transaction before the time that the person becomes an interested stockholder;
- (2) the interested stockholder owns at least 85% of the outstanding voting stock of the corporation at the time the merger transaction commences (excluding voting stock owned by directors who are also officers and certain employee stock plans); or
- (3) the merger transaction is approved by the board of directors and at a meeting of stockholders, not by written consent, by the affirmative vote of two-thirds (66 2/3%) of the outstanding voting stock which is not owned by the interested stockholder. A Delaware corporation may elect in its certificate of incorporation or bylaws not to be governed by this particular Delaware law.

Generally, a “business combination” includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an “interested stockholder” is a person who, together with that person’s affiliates and associates, owns, or within the previous three years owned, 15% or more of our voting stock.

Since we have not opted out of Section 203 of the DGCL, it applies to our company. As a result, this provision will make it more difficult for a person who would be an “interested stockholder” to effect various business combinations with us for a three-year period. This provision may encourage companies interested in acquiring our company to negotiate in advance with the Board because the stockholder approval requirement would be avoided if the Board approves either the business combination or the transaction which results in the stockholder becoming an interested stockholder. These provisions also may have the effect of preventing changes in the Board and may make it more difficult to accomplish transactions which stockholders may otherwise deem to be in their best interests.

Limitations on Liability and Indemnification of Officers and Directors

Our Certificate of Incorporation limits the liability of our directors to the fullest extent permitted by the DGCL, and our bylaws provide that we will indemnify them to the fullest extent permitted by such law. We have entered into agreements to indemnify our directors, executive officers and other employees as determined by our Board. Under the terms of such indemnification agreements, we are required to indemnify each of our directors and officers, to the fullest extent permitted by the laws of the State of Delaware, if the indemnitee acted in good

faith and in a manner the indemnitee reasonably believed to be in or not opposed to the best interests of our company. We must indemnify our officers and directors against all reasonable fees, expenses, charges and other costs of any type or nature whatsoever, including any and all expenses and obligations paid or incurred in connection with investigating, defending, being a witness in, participating in (including on appeal), or preparing to defend, be a witness or participate in any completed, actual, pending or threatened action, suit, claim or proceeding, whether civil, criminal, administrative or investigative, or establishing or enforcing a right to indemnification under the indemnification agreement. The indemnification agreements also require us, if so requested, to advance all reasonable fees, expenses, charges and other costs that such director or officer incurred, provided that such person will return any such advance if it is ultimately determined that such person is not entitled to indemnification by us. Any claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Exclusive Jurisdiction of Certain Actions

Our Certificate of Incorporation requires, to the fullest extent permitted by law, unless we consent in writing to the selection of an alternative forum, that derivative actions brought on our behalf, actions against any of our directors, officers or stockholders or breach of fiduciary duty, actions asserting a claim arising pursuant to any provision of the DGCL or our Certificate of Incorporation or Bylaws, and actions asserting a claim against us governed by the internal affairs doctrine may be brought only in the Court of Chancery of the State of Delaware and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to the personal jurisdiction of the state and federal courts in the State of Delaware and service of process on such stockholder's counsel. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Accordingly, both state and federal courts have jurisdiction to entertain such Securities Act claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, the Certificate of Incorporation requires that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the sole and exclusive forum for resolving any action asserting a claim arising under the Securities Act and, if brought in a court other than the federal district courts of the United States of America, the stockholder bringing the suit will be deemed to have consented to the personal jurisdiction of the federal district courts of the United States of America and service of process on such stockholder's counsel. However, there is uncertainty as to whether a court would enforce such provision, and investors cannot waive compliance with federal securities laws and the rules and regulations thereunder. Notwithstanding the foregoing, this forum selection provision will not apply to suits brought to enforce any liability or duty created by the Exchange Act, or any other claim for which the federal courts of the United States have exclusive jurisdiction.

Description of Warrants

Public Warrants

Each whole Public Warrant entitles the registered holder to purchase one whole share of Common Stock at a price of \$11.50 per share, subject to adjustment as discussed below, at any time commencing on January 12, 2022. Pursuant to the Warrant Agreement, a warrant holder may exercise its Public Warrants only for a whole number of shares of Common Stock. The Public Warrants will expire on August 25, 2026, at 5:00 p.m., New York City time, or earlier upon redemption or liquidation.

We will not be obligated to deliver any shares of Common Stock pursuant to the exercise for cash of a Public Warrant and will have no obligation to settle such Warrant exercise unless a registration statement under the Securities Act with respect to the shares of Common Stock underlying the Warrants is then effective and a

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prospectus relating thereto is current, subject to our satisfying our obligations described below with respect to registration. No Warrant will be exercisable and we will not be obligated to issue shares of Common Stock upon exercise of a Warrant unless Common Stock issuable upon such Warrant exercise has been registered, qualified or deemed to be exempt from the registration or qualifications requirements of the securities laws of the state of residence of the registered holder of the Warrants.

Notwithstanding the foregoing, if a registration statement covering the shares of Common Stock issuable upon exercise of the Public Warrants has not been declared effective by the end of 60 business days following August 25, 2021, Warrant holders may, until such time as there is an effective registration statement and during any period when we shall have failed to maintain an effective registration statement, exercise Warrants on a cashless basis pursuant to the exemption provided by Section 3(a)(9) of the Securities Act.

We have agreed that as soon as practicable, to maintain the effectiveness of a registration statement covering the issuance of the shares of Common Stock issuable upon exercise of the Warrants, and to maintain a current prospectus relating to those shares of Common Stock until the Warrants expire or are redeemed, as specified in the Warrant Agreement. If a registration statement covering the shares of Common Stock issuable upon exercise of the Warrants is not effective by the 60th business day after August 25, 2021 holders may, until such time as there is an effective registration statement and during any period when we will have failed to maintain an effective registration statement, exercise Warrants on a “cashless basis” in accordance with Section 3(a)(9) of the Securities Act or another exemption. Notwithstanding the above, if the Common Stock is at the time of any exercise of a Warrant not listed on a national securities exchange such that it satisfies the definition of a “covered security” under Section 18(b)(1) of the Securities Act, we may, at our option, require holders of Public Warrants who exercise their Warrants to do so on a “cashless basis” in accordance with Section 3(a)(9) of the Securities Act and, in the event we so elect, we will not be required to file or maintain in effect a registration statement, and in the event we do not so elect, we will use our best efforts to register or qualify the shares under applicable blue sky laws to the extent an exemption is not available.

We may call the warrants for redemption:

- in whole and not in part;
- at a price of \$0.01 per Warrant;
- upon not less than 30 days’ prior written notice of redemption (the “30-day redemption period”) to each Warrant holder; and
- if, and only if, the reported last sale price of Common Stock (or the closing bid price of Common Stock in the event shares of Common Stock are not traded on any specific day) equals or exceeds \$18.00 per share (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) for any 20 trading days within a 30 trading day period ending three business days, before we send the notice of redemption to the warrant holders.

If and when the Public Warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws.

We have established the last of the redemption criterion discussed above to prevent a redemption call unless there is at the time of the call a significant premium to the Public Warrant exercise price. If the foregoing conditions are satisfied and we issue a notice of redemption of the Public Warrants, each Public Warrant holder will be entitled to exercise its Public Warrant prior to the scheduled redemption date. However, the price of Common Stock may fall below the \$18.00 redemption trigger price (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) as well as the \$11.50 (for whole shares) warrant exercise price after the redemption notice is issued.

If we call the Public Warrants for redemption as described above, our management will have the option to require any holder that wishes to exercise its warrant to do so on a “cashless basis.” In determining whether to require all holders to exercise their Public Warrants on a “cashless basis,” our management will consider, among

other factors, our cash position, the number of warrants that are outstanding and the dilutive effect on our stockholders of issuing the maximum number of shares of Common Stock issuable upon the exercise of our warrants. If our management takes advantage of this option, all holders of Public Warrants would pay the exercise price by surrendering their warrants for that number of shares of Common Stock equal to the quotient obtained by dividing (x) the product of the number of shares of Common Stock underlying the warrants, multiplied by the difference between the exercise price of the warrants and the “fair market value” (defined below) by (y) the fair market value. The “fair market value” shall mean the average reported last sale price of Common Stock for the 10 trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of Public Warrants. If our management takes advantage of this option, the notice of redemption will contain the information necessary to calculate the number of shares of Common Stock to be received upon exercise of the Warrants, including the “fair market value” in such case. Requiring a cashless exercise in this manner will reduce the number of shares to be issued and thereby lessen the dilutive effect of a warrant redemption. We believe this feature is an attractive option to us if we do not need the cash from the exercise of the Warrants. If we call our Warrants for redemption and our management does not take advantage of this option, the Sponsor and its permitted transferees would still be entitled to exercise their Placement Warrants for cash or on a cashless basis using the same formula described above that other warrant holders would have been required to use had all warrant holders been required to exercise their warrants on a cashless basis, as described in more detail below.

A holder of a Warrant may notify us in writing in the event it elects to be subject to a requirement that such holder will not have the right to exercise such Warrant, to the extent that after giving effect to such exercise, such person (together with such person’s affiliates), to the Warrant agent’s actual knowledge, would beneficially own in excess of 4.9% or 9.8% (or such other amount as a holder may specify) of the shares of Common Stock outstanding immediately after giving effect to such exercise.

If the number of outstanding shares of Common Stock is increased by a stock dividend payable in shares of Common Stock, or by a split-up of shares of Common Stock or other similar event, then, on the effective date of such stock dividend, split-up or similar event, the number of shares of Common Stock issuable on exercise of each Warrant will be increased in proportion to such increase in the outstanding shares of Common Stock. A rights offering to holders of Common Stock entitling holders to purchase shares of Common Stock at a price less than the fair market value will be deemed a stock dividend of a number of shares of Common Stock equal to the product of (i) the number of shares of Common Stock actually sold in such rights offering (or issuable under any other equity securities sold in such rights offering that are convertible into or exercisable for Common Stock) multiplied by (ii) one (1) minus the quotient of (x) the price per share of Common Stock paid in such rights offering divided by (y) the fair market value. For these purposes, (i) if the rights offering is for securities convertible into or exercisable for Common Stock, in determining the price payable for Common Stock, there will be taken into account any consideration received for such rights, as well as any additional amount payable upon exercise or conversion, and (ii) fair market value means the volume weighted average price of Common Stock as reported during the 10 trading day period ending on the trading day prior to the first date on which the shares of Common Stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive such rights.

In addition, if we, at any time while the warrants are outstanding and unexpired, pay a dividend or make a distribution in cash, securities or other assets to the holders of Common Stock on account of such shares of Common Stock (or other shares of our capital stock into which the warrants are convertible), other than (a) as described above or (b) certain ordinary cash dividends then the Warrant exercise price will be decreased, effective immediately after the effective date of such event, by the amount of cash and/or the fair market value of any securities or other assets paid on each share of Common Stock in respect of such event.

If the number of outstanding shares of Common Stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of Common Stock or other similar event, then, on the effective date of such consolidation, combination, reverse stock split, reclassification or similar event, the number of shares of Common Stock issuable on exercise of each Warrant will be decreased in proportion to such decrease in outstanding shares of Common Stock.

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Whenever the number of shares of Common Stock purchasable upon the exercise of the Warrants is adjusted, as described above, the Warrant exercise price will be adjusted by multiplying the Warrant exercise price immediately prior to such adjustment by a fraction (x) the numerator of which will be the number of shares of Common Stock purchasable upon the exercise of the warrants immediately prior to such adjustment, and (y) the denominator of which will be the number of shares of Common Stock so purchasable immediately thereafter.

The Warrants are issued in registered form under the Warrant Agreement. You should review a copy of the Warrant Agreement for a complete description of the terms and conditions applicable to the warrants. The Warrant Agreement provides that the terms of the Warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision, but requires the approval by the holders of at least 65% of the then outstanding Public Warrants to make any change that adversely affects the interests of the registered holders of Public Warrants.

The Warrants may be exercised upon surrender of the warrant certificate on or prior to the expiration date at the offices of the Warrant agent, with the exercise form on the reverse side of the Warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price (or on a cashless basis, if applicable), by certified or official bank check payable to us, for the number of Warrants being exercised. The Warrant holders will not have the rights or privileges of holders of Common Stock and any voting rights until they exercise their Warrants and receive shares of Common Stock. After the issuance of shares of Common Stock upon exercise of the Warrants, each holder will be entitled to one vote for each share held of record on all matters to be voted on by stockholders.

Warrants may be exercised only for a whole number of shares of Common Stock. No fractional shares will be issued upon exercise of the Warrants. If, upon exercise of the Warrants, a holder would be entitled to receive a fractional interest in a share, we will, upon exercise, round down to the nearest whole number of shares of Common Stock to be issued to the Warrant holder. As a result, Warrant holders not purchasing an even number of Warrants must sell any odd number of Warrants in order to obtain full value from the fractional interest that will not be issued.

Placement Warrants

There are currently 181,667 Private Placement Warrants outstanding. The Private Placement Warrants are not redeemable by us so long as they are held by the Sponsor or its permitted transferees. The Sponsor, or its permitted transferees, has the option to exercise the Private Placement Warrants on a cashless basis. The Private Placement Warrants have terms and provisions that are identical to those of the Public Warrants described above, including as to exercise price, exercisability and exercise period. If the Private Placement Warrants are held by holders other than our Sponsor or its permitted transferees, the Private Placement Warrants will be redeemable by us and exercisable by the holders on the same basis as the Public Warrants described above.

Transfer Agent and Registrar

The transfer agent for Common Stock and warrant agent for the Public Warrants and Private Placement Warrants is Continental Stock Transfer & Trust Company. The address for Continental Stock Transfer & Trust Company is Attention: Shareholder Relations, 1 State Street, 30th Floor, New York, New York 10004.

Trading Symbol and Market

Our Common Stock is listed on Nasdaq under the symbol "EFTR," and our Warrants are listed on Nasdaq under the symbol "EFTRW."

SELLING SECURITYHOLDERS

This prospectus relates to (i) the resale of 17,455,611 shares of Common Stock issued in connection with the Business Combination by certain of the Selling Securityholders; (ii) the resale of 2,937,144 Earn-out Shares; (iii) 4,742,176 shares of Common Stock issued in the PIPE Investment by certain of the Selling Securityholders; (iv) the issuance by us and resale of 3,824,597 shares of Common Stock reserved for issuance upon the exercise of options to purchase Common Stock; (v) the resale of 4,056,250 shares of Common Stock issued to the Sponsor prior to the Business Combination; and (vi) the issuance by us of up to 6,014,990 shares of Common Stock upon the exercise of outstanding Warrants. This prospectus also relates to the resale of up to 181,667 of our outstanding Private Placement Warrants originally issued in a private placement in connection with the IPO of LWAC, by the holders thereof.

Earn-out Shares are issuable if, on or prior to August 26, 2023, the closing share price of shares of Common Stock equals or exceeds \$20.00 over at least 20 trading days within a 30-day trading period (“Triggering Event”) and, in respect of Earn-out Shares based on outstanding stock options, such holder continues to provide services to the Company or one of its subsidiaries at the time of such Triggering Event. The Earn-out Shares will also be earned and issuable in the event of a change in control of the Company on or prior to August 26, 2023 that results in the holders of Common Stock receiving a per-share price equal to or in excess of \$20.00. As of the date of this prospectus, the Triggering Event has not occurred.

The following table sets forth, as of the date of this prospectus, the names of the Selling Securityholders, and the aggregate number of shares of Common Stock and Warrants that the Selling Securityholders may offer pursuant to this prospectus. The table does not include the issuance by us of up to 6,014,990 shares of Common Stock upon the exercise of outstanding Warrants, each of which is also covered by this prospectus.

The Selling Securityholders listed in the table below may from time to time offer and sell any or all of the shares of Common Stock and Warrants set forth below pursuant to this prospectus. When we refer to the “Selling Securityholders” in this prospectus, we refer to the persons listed in the table below, and the pledgees, donees, transferees, assignees, successors and other permitted transferees that hold any of the Selling Securityholders’ interest in the shares of Common Stock and Warrants after the date of this prospectus.

The following table sets forth certain information provided by or on behalf of the Selling Securityholders concerning the Common Stock and Warrants that may be offered from time to time by each Selling Securityholder pursuant to this prospectus. The Selling Securityholders identified below may have sold, transferred or otherwise disposed of all or a portion of their securities after the date on which they provided us with information regarding their securities. Moreover, the securities identified below include only the securities being registered for resale and may not incorporate all shares deemed to be beneficially held by the Selling Securityholders. Any changed or new information given to us by the Selling Securityholders, including regarding the identity of, and the securities held by, each Selling Securityholder, will be set forth in a prospectus supplement or amendments to the registration statement of which this prospectus is a part, if and when necessary. A Selling Securityholder may sell all, some or none of such securities in this offering. See “Plan of Distribution.”

Percentage ownership is based on 41,452,790 shares of Common Stock and 6,014,990 Warrants outstanding as of August 30, 2022.

Other than as described below or elsewhere in this prospectus, none of the Selling Securityholders has any material relationship with us or any of our predecessors or affiliates.

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Name of Selling Stockholders	Before the Offering				After the Offering			
	Number of Shares of Common Stock	Number of Warrants	Number of Shares of Common Stock Being Offered (1)	Number of Warrants Being Offered (2)	Number of Shares of Common Stock	Percentage of Outstanding Shares of Common Stock	Number of Warrants	Percentage of Outstanding Warrants
AbbVie Biotechnology Ltd ⁽²⁾	1,379,373	—	1,379,373	—	—	—	—	—
Abingworth Bioventures VI L.P. ⁽³⁾	5,438,505	—	5,438,505	—	—	—	—	—
Alana McNulty ⁽⁴⁾	573,487	—	573,487	—	—	—	—	—
Alexandria Venture Investments ⁽⁵⁾	731,187	—	731,187	—	—	—	—	—
Entities affiliated with Altitude Life Sciences Ventures ⁽⁶⁾	3,183,756	—	3,183,756	—	—	—	—	—
Astellas Venture Management LLC ⁽⁷⁾	841,947	—	841,947	—	—	—	—	—
BMV Direct II L.P. ⁽⁸⁾	1,479,373	—	1,479,373	—	—	—	—	—
Chris Ehrlich ⁽⁹⁾	143,202	—	143,202	—	—	—	—	—
Elizabeth Bhatt ⁽¹⁰⁾	9,047	—	9,047	—	—	—	—	—
John W. Smither ⁽¹¹⁾	55,526	—	55,526	—	—	—	—	—
Kevin Shokat ⁽¹²⁾	177,133	—	177,133	—	—	—	—	—
Locust Walk Sponsor, LLC ⁽¹³⁾	4,237,917	181,667	4,237,917	181,667	—	—	—	—
Mike Byrnes ⁽¹⁴⁾	388,696	—	388,696	—	—	—	—	—
New Emerging Medical Opportunities Fund III, L.P. ⁽¹⁵⁾	3,240,051	—	3,240,051	—	—	—	—	—
Norges Bank ⁽¹⁶⁾	451,800	—	451,800	—	—	—	—	—
Premal Patel ⁽¹⁷⁾	488,647	—	488,647	—	—	—	—	—
Entities affiliated with SR One Capital ⁽¹⁸⁾	7,438,505	—	7,438,505	—	—	—	—	—
Stephen T. Worland, Ph.D. ⁽¹⁹⁾	2,361,667	—	2,361,667	—	—	—	—	—
Variopartner SICAV (PTG 17915) ⁽²⁰⁾	48,200	—	48,200	—	—	—	—	—

- (1) Unless otherwise noted, the business address of each of those listed in the table above is 11120 Roselle Street, Suite A, San Diego, California 92121.
- (2) Consists of (i) 1,208,587 shares of Common Stock and (ii) 170,786 Earn-out Shares. This reflects shares of Common Stock previously held by AbbVie UK Biopharmaceutical Ltd. that have been transferred to AbbVie Biotechnology Ltd. The address for AbbVie Biotechnology Ltd is 4th Floor, Washington House, 16 Church Street, Hamilton HM 11, Bermuda.
- (3) Consists of (i) 4,822,114 shares of Common Stock and (ii) 616,391 Earn-out Shares held of record by Abingworth Bioventures VI LP. The Carlyle Group Inc., which is a publicly traded entity listed on Nasdaq, is the sole shareholder of Carlyle Holdings I GP Inc., which is the sole member of Carlyle Holdings I GP Sub L.L.C., which is the general partner of Carlyle Holdings I L.P., which, with respect to the securities reported herein, is the managing member of CG Subsidiary Holdings L.L.C., which is the managing member of TC Group, L.L.C., which is the managing member of Carlyle Investment Management, L.L.C., which is the sole member of Carlyle Genesis UK LLC, which is the principal member of Abingworth LLP. Abingworth Bioventures VI LP has delegated to Abingworth LLP all investment and dispositive power over the securities held of record by

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Abingworth Bioventures VI LP. Voting and investment determinations with respect to the securities held by Abingworth Bioventures VI LP are made by an investment committee of Abingworth LLP, which is comprised of Timothy Haines, Kurt von Emster, Bali Muralidhar and Andrew Sinclair. Accordingly, each of the entities and individuals named in this footnote may be deemed to share beneficial ownership of the securities held of record by Abingworth Bioventures VI LP. Each of them disclaims beneficial ownership of such securities. The address for each of Abingworth Bioventures VI LP and Abingworth LLP is c/o Abingworth LLP, 38 Jermyn Street, London, England SW1Y 6DN. The address for each of the Carlyle entities listed in this footnote is c/o The Carlyle Group, 1001 Pennsylvania Ave. NW, Suite 220 South, Washington, DC 20004-2505.

- (4) Consists of (i) 48,768 shares of Common Stock, (ii) 7,315 Earn-out Shares and (iii) 517,404 shares of Common Stock issuable upon the exercise of options.
- (5) Consists of (i) 646,642 shares of Common Stock and (ii) 84,545 Earn-out Shares. The managing member of the selling securityholder is Alexandria Real Estate Equities, Inc., a publicly held corporation. The mailing address of the selling securityholder is 26 North Euclid Ave, Pasadena, CA 91101.
- (6) Consists of (i) 1,413,175 shares of Common Stock and (ii) 178,703 Earn-out Shares held by Altitude Life Sciences Ventures Fund II, L.P., and (iii) 1,413,175 shares of Common Stock and (iv) 178,703 Earn-out Shares held by Altitude Life Sciences Ventures Side Fund II, L.P. David Maki is the managing member of Altitude Life Science Ventures II, LLC, which is the general partner of each of Altitude Life Science Ventures Fund II, L.P. and Altitude Life Science Ventures Side Fund II, L.P., and holds voting, investment and dispositive power with respect to these shares. The address for the Altitude Life Science Ventures is 1014 Market Street, Suite 200, Kirkland, WA 98074.
- (7) Consists of (i) 732,129 shares of Common Stock and (ii) 109,818 Earn-out Shares. Kazunori Maruyama is President of Astellas Venture Management LLC (Astellas) and as a result may be deemed to have voting and investment power with respect to the shares held by Astellas. Mr. Maruyama disclaims beneficial ownership of the shares held by Astellas except to the extent of his pecuniary interest therein. The mailing address for Astellas is 2000 Sierra Point Parkway, Suite 500, Brisbane, CA 94005.
- (8) Consists of (i) 1,308,587 shares of Common Stock and (ii) 170,786 Earn-out Shares. Timothy Schoen, Jonathan Bergschneider, Bill Kane, Lihpang Lu and Kevin Simonsen are each officers of BMV Direct II LP and may be deemed to have voting and investment power of the shares held by BVM Direct II LP. Each of such person disclaims beneficial ownership except to their pecuniary interest therein. The mailing address for BMV Direct II LP is 4570 Executive Drive, Suite 400, San Diego, CA 92121.
- (9) Consists of (i) 143,202 shares of Common Stock held directly by Locust Walk Sponsor, LLC. LWAC D&O LLC is a member of Locust Walk Sponsor, LLC and Mr. Ehrlich is a member of LWAC D&O LLC. Shares registered for resale represent shares in which Mr. Ehrlich or Mr. Ehrlich's spouse have a pecuniary interest.
- (10) Consists of (i) 9,047 shares of Common Stock held directly by Locust Walk Sponsor, LLC. LWAC D&O LLC is a member of Locust Walk Sponsor, LLC and Ms. Bhatt is a member of LWAC D&O LLC. Shares registered for resale represent shares in which Ms. Bhatt has a pecuniary interest.
- (11) Consists of (i) 24,142 shares of Common Stock, (ii) 7,242 Earn-out Shares and (iii) 24,142 shares of Common Stock issuable upon the exercise of options.
- (12) Consists of (i) 108,642 shares of Common Stock and (ii) 16,296 Earn-out Shares held by a family trust of which Mr. Shokat is a trustee and (iii) 11,588 of Common Stock, (iv) 6,808 Earn-out Shares and (v) 33,799 shares issuable upon the exercise of options held directly by Mr. Shokat.
- (13) Consists of (i) 4,056,250 shares of Common Stock and (ii) 181,667 shares of Common Stock issuable upon exercise of the Private Placement Warrants. Locust Walk Partners, LLC is the manager of Locust Walk Sponsor, LLC (LWAC Sponsor). Geoff Meyerson is the CEO & Co-founder of Locust Walk Partners, LLC and may be deemed to have voting, investment and dispositive power with respect to these shares. Mr. Meyerson disclaims beneficial ownership of these securities, except to the extent of his pecuniary interest therein. The business address of Locust Walk Partners, LLC is 200 Clarendon Street, 51st Floor, Boston, MA 02116.
- (14) Consists of (i) 50,699 Earn-out Shares and (ii) 337,997 shares of Common Stock issuable upon the exercise of options.

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- (15) Consists of (i) 2,882,644 shares of Common Stock and (ii) 357,407 Earn-out Shares. Sectoral Asset Management Inc., in its capacity as investment adviser to New Emerging Medical Opportunities Fund III, L.P. (NEMO), has the sole right to dispose of or vote the NEMO shares and is the owner of the general partner (Sectoral GP III L.P.) of NEMO. Michael Sjöström and Jérôme Pfund are ultimate beneficial owners and senior executives of Sectoral Management Inc. Each of Sectoral Asset Management Inc., Mr. Sjöström and Mr. Pfund disclaims beneficial ownership of the NEMO shares except to the extent of its or his pecuniary interest therein. The mailing address for NEMO is c/o Sectoral Asset Management Inc. at 1010 Sherbrooke St. West, #1610, Montreal, QC Canada H3A 2R7.
- (16) Sectoral Asset Management Inc., in its capacity as investment adviser to Norges Bank (Norges), has the sole right to dispose of or vote the Norges shares. Michael Sjöström and Jérôme Pfund are ultimate beneficial owners and senior executives of Sectoral Management Inc. Each of Sectoral Asset Management Inc., Mr. Sjöström and Mr. Pfund disclaims beneficial ownership of the Norges shares except to the extent of its or his pecuniary interest therein. The mailing address for Norges is c/o Sectoral Asset Management Inc. at 1010 Sherbrooke St. West, #1610, Montreal, QC Canada H3A 2R7.
- (17) Consists of (i) 63,736 Earn-out Shares and (ii) 424,911 shares of Common Stock issuable upon the exercise of options.
- (18) Consists of (i) 4,822,114 shares of Common Stock and (ii) 616,391 Earn-out Shares held by SR One Capital Fund I Aggregator, LP (SR One Capital Fund) and (iii) 2,000,000 shares of Common Stock held by SR One Co-Invest I, LLC (SR One Co-Invest). SR One Capital Partners I, LP (SR One Capital Partners) is the general partner of SR One Capital Fund. SR One Co-Invest I Manager, LLC (SR One Co-Invest Manager) is the managing member of SR One Co-Invest. SR One Capital Management, LLC (SR One Capital Management) is the general partner of SR One Capital Partners and the managing member of SR One Co-Invest Manager. Simeon George, M.D. is the managing member of SR One Capital Management. By virtue of such relationships, Dr. George, SR One Capital Partners, SR One Capital Management and SR One Co-Invest Manager may be deemed to have voting and investment power with respect to the shares held by SR One Capital Fund and/or SR One Co-Invest, as applicable, and as a result may be deemed to have beneficial ownership of such shares. Each of Dr. George, SR One Capital Partners, SR One Capital and SR One Co-Invest Manager disclaims beneficial ownership of the shares held by SR One Capital Fund and SR One Co-Invest, except to the extent of its or his pecuniary interest therein if any. The address for SR One Capital Fund I Aggregator, LP and SR One Co-Invest I, LLC is 985 Old Eagle School Road, Suite 511, Wayne, PA 19087.
- (19) Consists of (i) 562,339 shares of Common Stock and (ii) 76,850 Earn-out Shares held by a family trust of which Dr. Worland is a trustee and (iii) 193,141 shares of Common Stock, (iv) 224,668 Earn-out Shares and (v) 1,304,669 shares of Common Stock issuable upon the exercise of options held by Dr. Worland directly.
- (20) Sectoral Asset Management Inc., in its capacity as investment adviser to Variopartner SICAV (PTG 17915) (Variopartner), has the sole right to dispose of or vote the Variopartner shares. Michael Sjöström and Jérôme Pfund are ultimate beneficial owners and senior executives of Sectoral Management Inc. Each of Sectoral Asset Management Inc., Mr. Sjöström and Mr. Pfund disclaims beneficial ownership of the Variopartner shares except to the extent of its or his pecuniary interest therein. The mailing address for Variopartner is c/o Sectoral Asset Management Inc. at 1010 Sherbrooke St. West, #1610, Montreal, QC Canada H3A 2R7.

PLAN OF DISTRIBUTION

We are registering (i) the resale of 17,455,611 shares of Common Stock issued in connection with the Business Combination by certain of the Selling Securityholder; (ii) the resale of 2,937,144 Earn-out Shares; (iii) the resale of 4,742,176 shares of Common Stock issued in the PIPE Investment by certain of the Selling Securityholders; (iv) the issuance by us and resale of 3,824,597 shares of Common Stock reserved for issuance upon the exercise of options to purchase Common Stock; (v) the resale of 4,056,250 shares of Common Stock issued to the Sponsor prior to the Business Combination; and (vi) the issuance by us of up to 6,014,990 shares of Common Stock upon the exercise of the Warrants. The Selling Securityholders will pay all incremental selling expenses relating to the sale of their shares of Common Stock and Warrants, including underwriters' or agents' commissions and discounts, brokerage fees, underwriter marketing costs and all reasonable fees and expenses of any legal counsel representing the Selling Securityholders, except that we will pay the reasonable fees and expenses of one legal counsel for the Selling Securityholders, in the event of an underwritten offering of their shares of Common Stock or Warrants. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares of Common Stock and Warrants covered by this prospectus, including, without limitation, all registration and filing fees, printing and delivery fees, Nasdaq listing fees and fees and expenses of our counsel and our accountants.

The shares of Common Stock and Warrants beneficially owned by the Selling Securityholders covered by this prospectus may be offered and sold from time to time by the Selling Securityholders. The term "Selling Securityholders" includes donees, pledgees, transferees or other successors in interest selling securities received after the date of this prospectus from a Selling Securityholder as a gift, pledge, partnership distribution or other transfer. The Selling Securityholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then-current market price or in negotiated transactions. The Selling Securityholders may sell their shares of Common Stock and Warrants by one or more of, or a combination of, the following methods:

- purchases by a broker-dealer as principal and resale by such broker-dealer for its own account pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- block trades in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- an over-the-counter distribution in accordance with the rules of Nasdaq;
- through trading plans entered into by a Selling Securityholder pursuant to Rule 10b5-1 under the Exchange Act, that are in place at the time of an offering pursuant to this prospectus and any applicable prospectus supplement hereto that provide for periodic sales of their securities on the basis of parameters described in such trading plans;
- to or through underwriters or broker-dealers;
- in "at the market" offerings, as defined in Rule 415 under the Securities Act, at negotiated prices, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made directly on a national securities exchange or sales made through a market maker other than on an exchange or other similar offerings through sales agents;
- in privately negotiated transactions;
- in options transactions;
- through the distribution of the securities by any Selling Securityholder to its partners, members or stockholders;
- through a combination of any of the above methods of sale; or
- any other method permitted pursuant to applicable law.

In addition, any shares that qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

A Selling Securityholder that is an entity may elect to make an in-kind distribution of Common Stock to its members, partners, stockholders or other equityholders pursuant to the registration statement of which this prospectus forms a part by delivering a prospectus. To the extent that such members, partners, stockholders or other equityholders are not affiliates of ours, such members, partners, stockholders or other equityholders would thereby receive freely tradable shares of Common Stock pursuant to a distribution pursuant to the registration statement of which this prospectus forms a part.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the shares or otherwise, the Selling Securityholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of shares of Common Stock in the course of hedging the positions they assume with Selling Securityholders. The Selling Securityholders may also sell shares of Common Stock short and redeliver the shares to close out such short positions. The Selling Securityholders may also enter into option or other transactions with broker-dealers or other financial institutions that require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The Selling Securityholders may also pledge shares to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution, may effect sales of the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction).

A Selling Securityholder may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by any Selling Securityholder or borrowed from any Selling Securityholder or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from any Selling Securityholder in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment). In addition, any Selling Securityholder may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

In effecting sales, broker-dealers or agents engaged by the Selling Securityholders may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the Selling Securityholders in amounts to be negotiated immediately prior to the sale.

In offering the securities covered by this prospectus, the Selling Securityholders and any broker-dealers who execute sales for the Selling Securityholders may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. Any profits realized by the Selling Securityholders and the compensation of any broker-dealer may be deemed to be underwriting discounts and commissions.

In order to comply with the securities laws of certain states, if applicable, the securities must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the securities may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised the Selling Securityholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of securities in the market and to the activities of the Selling Securityholders

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and their affiliates. In addition, we will make copies of this prospectus available to the Selling Securityholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The Selling Securityholders may indemnify any broker-dealer that participates in transactions involving the sale of the securities against certain liabilities, including liabilities arising under the Securities Act.

At the time a particular offer of securities is made, if required, a prospectus supplement will be distributed that will set forth the number of securities being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallocated or paid to any dealer, and the proposed selling price to the public.

A holder of Warrants may exercise its Warrants in accordance with the Warrant Agreement on or before the expiration date by surrendering, at the office of the Warrant agent, Continental Stock Transfer & Trust Company, the certificate evidencing such Warrant, an election to purchase, properly completed and duly executed, accompanied by full payment of the exercise price and any and all applicable taxes due in connection with the exercise of the Warrant, subject to any applicable provisions relating to cashless exercises in accordance with the Warrant Agreement.

Under the Amended and Restated Registration Rights Agreement, we have agreed to indemnify the Selling Securityholders party thereto against certain liabilities that they may incur in connection with the sale of the securities registered hereunder, including liabilities under the Securities Act, and to contribute to payments that the Selling Securityholders may be required to make with respect thereto. In addition, we and the Selling Securityholders have agreed to indemnify any underwriter against certain liabilities related to the selling of the securities, including liabilities arising under the Securities Act.

We have agreed to pay all expenses in connection with this offering, other than underwriting commissions and discounts, brokerage fees, underwriter marketing costs, and certain legal expenses. The Selling Securityholders will pay any underwriting commissions and discounts, brokerage fees, underwriter marketing costs, and certain legal expenses relating to the offering.

LEGAL MATTERS

The validity of the shares of Common Stock and Warrants offered hereby will be passed upon for us by Latham & Watkins LLP, San Diego, California.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2021, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

PART II**INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution**

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions.

Securities and Exchange Commission registration fee	\$ 94,339*
Accounting fees and expenses	\$100,000*
Legal fees and expenses	\$100,000*
Financial printing and miscellaneous expenses	\$ 80,661*
Total	<u>\$375,000*</u>

* Previously paid.

Item 15. Indemnification of Directors and Officers

Subsection (a) of Section 145 of the General Corporation Law of the State of Delaware (referred to as the “DGCL”) empowers a corporation to indemnify any person who was or is a party or who is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person’s conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person acted in any of the capacities set forth above, against expenses (including attorneys’ fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys’ fees) actually and reasonably incurred by such person in connection therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and the indemnification provided for by Section 145 shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of such person’s heirs, executors and administrators. Section 145 also empowers the corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director,

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officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify such person against such liabilities under Section 145.

Section 102(b)(7) of the DGCL provides that a corporation's certificate of incorporation may contain a provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation provides for indemnification of its directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and LWAC's bylaws provide for indemnification of its directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law.

In addition, we entered into indemnification agreements with each of our directors and officers. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We intend to enter into indemnification agreements with its future directors.

Item 16. Exhibits

Exhibit No.	Description
3.1	<u>Amended and Restated Certificate of Incorporation of eFFECTOR Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed on August 31, 2021).</u>
3.2	<u>Amended and Restated Bylaws of eFFECTOR Therapeutics, Inc. (incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K filed on August 31, 2021).</u>
4.1	<u>Specimen common stock certificate (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-4/A (File No. 333-257091), filed on August 5, 2021).</u>
4.2	<u>Warrant Agreement, dated January 7, 2021, between Continental Stock Transfer & Trust Company and Locust Walk Acquisition Corp. (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed on January 13, 2021).</u>
5.1	<u>Opinion of Latham & Watkins LLP (incorporated by reference to Exhibit 5.1 to the initial filing of the registration statement).</u>
23.1*	<u>Consent of Independent Registered Public Accounting Firm.</u>
23.2	<u>Consent of Latham & Watkins LLP (included as part of Exhibit 5.1).</u>
24.1	<u>Power of Attorney (included on signature page of the initial filing of this Registration Statement).</u>

* Filed herewith.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of

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contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Solana Beach, State of California, on September 1, 2022.

eFFECTOR THERAPEUTICS, INC.

By: /s/ Stephen Worland, Ph.D.
Name: Stephen Worland, Ph.D.
Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
<u>*</u> Stephen Worland, Ph.D	President, Chief Executive Officer and Director (Principal Executive Officer)	September 1, 2022
<u>*</u> Michael Byrnes	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	September 1, 2022
<u>*</u> Brian M. Gallagher, Jr., Ph.D.	Director and Board Chair	September 1, 2022
<u>*</u> Elizabeth P. Bhatt	Director	September 1, 2022
<u>*</u> Chris Ehrlich	Director	September 1, 2022
<u>*</u> Kristen Harrington-Smith	Director	September 1, 2022
<u>*</u> Barbara Klencke, M.D.	Director	September 1, 2022
<u>*</u> John W. Smither	Director	September 1, 2022

* By: /s/ Stephen Worland, Ph.D.
Stephen Worland, Ph.D.
Attorney-in-Fact

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in this Post-Effective Amendment No. 2 to Form S-1 on Form S-3 to the Registration Statement (No. 333-259751) and related Prospectus of eFFECTOR Therapeutics, Inc. for the registration of up to 33,015,778 shares of its common stock and up to 6,014,990 warrants to purchase shares of its common stock and to the incorporation by reference therein of our report dated March 16, 2022, with respect to the consolidated financial statements of eFFECTOR Therapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California
September 1, 2022