

Prospectus Supplement No. 3
(To Prospectus dated October 5, 2021)

eFFECTOR Therapeutics, Inc.



This prospectus supplement updates, amends and supplements the prospectus dated October 5, 2021 (the "Prospectus"), which forms a part of our Registration Statement on Form S-1 (Registration No. 333-259751). Capitalized terms used in this prospectus supplement and not otherwise defined herein have the meanings specified in the Prospectus.

This prospectus supplement is being filed to update, amend and supplement the information included in the Prospectus with the information contained in our Current Report on Form 8-K (the "Current Report"), filed with the SEC on January 24, 2022. Accordingly, we have attached the Current Report to this prospectus supplement.

This prospectus supplement is not complete without the Prospectus. This prospectus supplement should be read in conjunction with the Prospectus, which is to be delivered with this prospectus supplement, and is qualified by reference thereto, except to the extent that the information in this prospectus supplement updates or supersedes the information contained in the Prospectus.

Our common stock and warrants are listed on the Nasdaq Capital Market under the symbols "EFTR" and "EFTRW." On January 21, 2022, the closing price of our common stock was \$6.42 and the closing price of our warrants was \$0.63.

We are an "emerging growth company" under federal securities laws and are subject to reduced public company reporting requirements. Investing in our securities involves certain risks. See "Risk Factors" beginning on page 7 of the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if the Prospectus or this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is January 24, 2022.

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

FORM 8-K

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

Date of Report (Date of earliest event reported): January 24, 2022

eFFECTOR Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-39866
(Commission
File Number)

85-3306396
(I.R.S. Employer
Identification No.)

142 North Cedros Avenue, Suite B
Solana Beach, California
(Address of principal executive offices)

92075
(Zip Code)

(858) 925-8215
(Registrant's telephone number, including area code)

11120 Roselle Street, Suite A
San Diego, California 92121
(Former name or former address, if changed since last report)

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

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.0001 par value per share	EFTR	Nasdaq Capital Market
Warrants to purchase common stock	EFTRW	Nasdaq Capital Market

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

Emerging growth company

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

Item 1.01 Entry Into a Material Definitive Agreement.

On January 24, 2022, eFFECTOR Therapeutics, Inc. (the “Company”) entered into a purchase agreement (the “Purchase Agreement”), with Lincoln Park Capital Fund, LLC (“Lincoln Park”), under which, subject to specified terms and conditions, the Company may sell to Lincoln Park up to \$50.0 million of shares of common stock, par value \$0.0001 per share, from time to time during the term of the Purchase Agreement.

Additionally, on January 24, 2022, the Company entered into a registration rights agreement (the “Registration Rights Agreement”) with Lincoln Park, pursuant to which the Company agreed to file a registration statement with the Securities and Exchange Commission (the “SEC”), covering the resale of shares of common stock issued to Lincoln Park under the Purchase Agreement.

Upon entering into the Purchase Agreement, the Company issued 142,939 shares of common stock to Lincoln Park as consideration for Lincoln Park’s commitment to purchase up to \$50.0 million of shares of common stock under the Purchase Agreement. The Company cannot sell any shares to Lincoln Park until the date that a registration statement covering the resale of shares of common stock that have been, and may in the future be, issued to Lincoln Park under the Purchase Agreement, which the Company agreed to file with the SEC pursuant to the Registration Rights Agreement, is declared effective by the SEC and a final prospectus in connection therewith is filed and all of the other conditions set forth in the Purchase Agreement are satisfied (such date, the “Commencement Date”).

On the Commencement Date, the Company shall sell to Lincoln Park and Lincoln Park shall purchase \$3.0 million of shares, under the terms and subject to the conditions of the Purchase Agreement, to Lincoln Park. Following the Commencement Date and for a period of up to 36 months thereafter, under the terms and subject to the conditions of the Purchase Agreement, from time to time, at the Company’s discretion, the Company has the right, but not the obligation, to sell to Lincoln Park, and Lincoln Park is obligated to purchase, up to an additional \$47.0 million of shares of common stock, subject to certain limitations set forth in the Purchase Agreement. Specifically, from time to time from and after the Commencement Date, the Company may, at its discretion, direct Lincoln Park to purchase on any single business day on which the closing price of its common stock on The Nasdaq Capital Market is equal to or greater than \$1.00 up to 30,000 shares of common stock, which maximum share amount may be increased up to 75,000 shares depending on the market price of the Company’s common stock at the time of sale (“Regular Purchases”) and subject to a maximum commitment by Lincoln Park of \$2,500,000 per single Regular Purchase. The foregoing share amounts and per share prices will be adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring after the date of the Purchase Agreement with respect to our common stock. The purchase price per share for each such Regular Purchase will be based on prevailing market prices of the Company’s common stock immediately preceding the time of sale, as determined under the Purchase Agreement.

In addition to Regular Purchases, the Company may also direct Lincoln Park to purchase other amounts as accelerated purchases or as additional accelerated purchases on the terms and subject to the conditions set forth in the Purchase Agreement. Lincoln Park has no right to require the Company to sell any common stock to Lincoln Park, but Lincoln Park is obligated to make purchases as the Company directs, subject to conditions and limitations set forth in the Purchase Agreement.

The Purchase Agreement also prohibits the Company from directing Lincoln Park to purchase any shares of common stock if those shares, when aggregated with all other shares of common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership, at any single point in time, of more than 4.99% of the then total outstanding shares of common stock.

Under applicable rules of The Nasdaq Capital Market, the Company may not issue or sell to Lincoln Park under the Purchase Agreement more than 19.99% of the shares of the Common Stock outstanding immediately prior to the execution of the Purchase Agreement (or 8,133,926 shares, based on 40,689,975 shares outstanding immediately prior to the execution of the Purchase Agreement), unless (i) stockholder approval is obtained or (ii) the issuances and sales of common stock pursuant to the Purchase Agreement are not deemed to be “below market” in accordance with the applicable rules of Nasdaq.

The Company may elect to terminate the Purchase Agreement at any time, without any cost or penalty. The Purchase Agreement does not include any of the following: limitations on the Company’s use of amounts it receives

as the purchase price for shares of common stock sold to Lincoln Park; financial or business covenants; restrictions on future financings (other than restrictions on its ability to enter into a "Variable Rate Transaction" as defined in the Purchase Agreement); rights of first refusal; participation rights or penalties.

The Company's net proceeds under the Purchase Agreement will depend on the frequency of sales and the number of shares sold to Lincoln Park and the prices at which the Company sells shares to Lincoln Park. The Company expects that any net proceeds it receives from such sales to Lincoln Park will be used for general corporate purposes, including working capital.

The foregoing descriptions of the Purchase Agreement and the Registration Rights Agreement are qualified in their entirety by reference to the full text of the Purchase Agreement and the Registration Rights Agreement, which are attached to this Current Report on Form 8-K as Exhibit 10.1 and Exhibit 10.2, respectively, and each of which is incorporated herein by reference.

This Current Report on Form 8-K shall not constitute an offer to sell or a solicitation of an offer to buy any shares of common stock, nor shall there be any sale of shares of common stock in any state or jurisdiction in which such an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or other jurisdiction.

Item 3.02 Unregistered Sale of Equity Securities.

The information contained above in Item 1.01 is incorporated by reference into this Item 3.02. Based in part upon the representations of Lincoln Park in the Purchase Agreement, the offering and sale of the securities to Lincoln Park under the Purchase Agreement is exempt from registration under Section 4(a)(2) of the Securities Act of 1933, as amended, and Rule 506(b) of Regulation D thereunder. Lincoln Park represented that it is an accredited investor, as such term is defined in Rule 501(a)(3) of Regulation D under the Securities Act of 1933, as amended, and that it is acquiring the shares for its own account and not with a view to any resale, distribution or other disposition of such securities in violation of the U.S. federal securities laws or applicable state securities or "Blue Sky" laws.

Item 7.01 Regulation FD Disclosure.

On January 24, 2022, the Company hosted a conference call with accompanying slides to discuss updates to the Company's clinical program and other matters. A copy of the slide presentation is filed as Exhibit 99.1 hereto and incorporated herein by reference.

The information in Item 7.01 of this Current Report on Form 8-K, including the slides incorporated herein by reference, is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, and it shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or under the Exchange Act, whether made before or after the date hereof, except as expressly set forth by specific reference in such filing to this Item 7.01 of this Current Report on Form 8-K.

Item 8.01 Other Events.

On January 24, 2022, the Company announced that in the randomized Phase 2b KICKSTART trial of tomivosertib in combination with pembrolizumab in NSCLC, a new cohort has been added to evaluate frontline maintenance in patients with PD-L1 ³¹%, an estimated \$5 billion potential U.S. market opportunity. Additionally, the Company is discontinuing development of tomivosertib in patients who have already progressed on pembrolizumab monotherapy. Topline data from the ongoing frontline cohort in patients with PD-L1 ^{≥50}% and the new frontline maintenance cohort in patients with PD-L1 ^{≥1}% in the KICKSTART TRIAL are now expected in the first half of 2023. Separately, in the Phase 2a trial evaluating zotatifin in patients with solid tumors, the Company dosed patients in two new expansion cohorts.

The new cohort in the Phase 2b KICKSTART trial of tomivosertib in NSCLC will enroll approximately 60 patients with PD-L1 ³¹% NSCLC immediately after they complete the platinum chemotherapy phase (4-6 cycles) of their frontline treatment without disease progression. Patients in this cohort will be randomized 1:1 to standard-of-care maintenance therapy plus tomivosertib in the treatment group versus standard-of-care maintenance plus placebo in the control group. Standard-of-care maintenance therapy is defined as pembrolizumab + pemetrexed in non-squamous NSCLC and pembrolizumab in squamous NSCLC.

Enrollment continues in the frontline PD-L1 ³⁵⁰% cohort in the KICKSTART trial, which will evaluate approximately 60 patients, but has been slower than originally anticipated. Reasons for slow enrollment include the impact of COVID-19 on site operations and an evolving treatment landscape with greater than anticipated use of chemotherapy + pembrolizumab as frontline therapy. The Company has taken multiple steps to drive enrollment, including increasing the number of trial sites and continuing emphasis on the importance of PD-L1 testing to select optimal frontline therapy, especially for patients with PD-L1 ³⁵⁰% who may be managed using a chemotherapy-free regimen. The Company believes these mitigation efforts, combined with patient and physician outreach activities, will enhance enrollment.

These two trial cohorts represent the large majority of advanced NSCLC patients and a significant market opportunity, estimated at \$9 billion in the U.S. There are ~70,000 U.S. patients with metastatic, unresectable NSCLC with PD-L1 ³1%. Of those patients, ~43,000 have PD-L1 status 1-49%, and standard frontline treatment is anti-PD-(L)1 therapy combined with chemotherapy. Approximately 80% of patients treated with this frontline treatment continue on anti-PD-(L)1 maintenance therapy following chemotherapy and would be candidates for tomivosertib in combination in the maintenance setting, representing an addressable population of ~34,000. In addition, there are ~27,000 patients with PD-L1 status ³50% for whom single agent anti-PD-(L)1 therapy is an accepted standard as frontline therapy that would be candidates to receive tomivosertib in combination.

The Company discontinued enrollment in the frontline extension cohort of the KICKSTART trial, which was evaluating tomivosertib as an add-on to treatment in NSCLC patients who had progressed on pembrolizumab, representing the smallest NSCLC population of ~9,000 patients. Enrollment in this cohort had been slower than anticipated, in part due to reluctance of patients to continue pembrolizumab monotherapy treatment after progression in the control group. In addition, the treatment landscape is rapidly evolving for frontline NSCLC such that pembrolizumab monotherapy use may diminish in the future.

Across the two active cohorts, the company plans to enroll approximately 120 patients randomized equally to receive standard-of-care plus tomivosertib versus standard-of-care plus placebo. Primary endpoints of the trial are progression free survival ("PFS") in each cohort separately, with key secondary endpoints being safety, objective response rate ("ORR") and overall survival ("OS"). Topline data readouts from both cohorts are now anticipated to occur in the first half of 2023.

Pending positive results from the KICKSTART Phase 2b clinical trial, the Company plans to advance tomivosertib into Phase 3 registration trials. If results from the KICKSTART trial are clinically and statistically significant, the Company plans to explore the potential for accelerated approval with the FDA.

In the ongoing Phase 1/2 dose escalation and expansion trial of zotatifin in multiple solid tumors, patients have been dosed in two recently opened combination cohorts: KRAS G12C-mutant NSCLC in combination with sotorasib; and ER+/Her2- breast cancer in combination with fulvestrant and abemaciclib. Two additional breast cancer cohorts, ER+/FGFR+ evaluating zotatifin as monotherapy and ER+ evaluating zotatifin in combination with fulvestrant, continue to enroll.

The primary objective of this trial is to assess the safety, tolerability and activity of zotatifin as a monotherapy treatment and in combination with targeted agents in biomarker-specific patient populations. If positive activity is observed in one or more Phase 2a expansion cohorts, the Company plans to evaluate zotatifin, potentially as a combination in a randomized trial against a relevant comparator control group, or potentially in a single-arm monotherapy trial following demonstration of an appropriate ORR in the Phase 2a monotherapy expansion cohort.

The Company anticipates reporting initial response data from one or more of the expansion cohorts, as well as additional data from the Phase 1 dose escalation portion of the trial, in the first half of 2022. The Company anticipates reporting topline results from the trial in the second half of 2022.

The Company expects that its existing cash resources will allow it to read out initial response and topline results from the ongoing Phase 2a dose-expansion cohorts in the zotatifin program as well as topline data from both of the active cohorts in the ongoing Phase 2b KICKSTART trial.

Cautionary Note Regarding Forward-Looking Statements

The Company cautions readers that statements contained in this report regarding matters that are not historical facts are forward-looking statements. These statements are based on the Company's current beliefs and expectations. Such forward-looking statements include, but are not limited to, statements regarding: the future clinical development of the Company's product candidates, including potential future registrational trials and plans to potentially seek accelerated approval; the expected timing of reporting data from the Company's clinical trials;

the potential therapeutic benefits of the Company's product candidates; the potential market opportunity for the Company's product candidates; the sufficiency of the Company's capital resources to allow clinical trial data readouts; and the timing and amount of any capital raised under the LPC facility and the use of proceeds from any capital raised. The inclusion of forward-looking statements should not be regarded as a representation by the Company that any of its plans will be achieved. Actual results may differ from those set forth in this report due to the risks and uncertainties inherent in the Company's business, including, without limitation: potential delays in the commencement, enrollment and completion of clinical trials; additional disruptions to the Company's operations from the COVID-19 pandemic, including clinical trial and manufacturing delays; the Company's ability to access the LPC facility is subject to certain conditions, including the SEC must declare a registration statement on Form S-1 effective; the Company's dependence on third parties in connection with product manufacturing, research and preclinical and clinical testing; the results of preclinical studies and early clinical trials are not necessarily predictive of future results; the success of the Company's clinical trials and preclinical studies for the Company's product candidates is uncertain; the Company may use its capital resources sooner than expected and may be insufficient to allow clinical trial data readouts; regulatory developments in the United States and foreign countries; unexpected adverse side effects or inadequate efficacy of the Company's product candidates that may limit their development, regulatory approval and/or commercialization, or may result in recalls or product liability claims; the Company's ability to obtain and maintain intellectual property protection for its product candidates; the Company may use its capital resources sooner than it expects; and other risks described in the Company's prior filings with the SEC, including under the heading "Risk Factors" in the Company's most recent quarterly report on Form 10-Q and any subsequent filings with the SEC. The Company cautions readers not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and the Company undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
10.1	Purchase Agreement, dated January 24, 2022, between eFFECTOR and Lincoln Park Capital Fund, LLC
10.2	Registration Rights Agreement, dated January 24, 2022, between eFFECTOR and Lincoln Park Capital Fund, LLC
99.1	Slide Presentation
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURE

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

eFFECTOR Therapeutics, Inc.

Date: January 24, 2022

By: /s/ Michael Byrnes

Name: Michael Byrnes

Title: Chief Financial Officer

PURCHASE AGREEMENT

THIS PURCHASE AGREEMENT (the "Agreement"), dated as of January 24, 2022, is made by and between EFFECTOR THERAPEUTICS, INC., a Delaware Corporation (the "Company"), and LINCOLN PARK CAPITAL FUND, L.L.C, an Illinois limited liability company (the "Investor"). Capitalized terms used herein and not otherwise defined herein are defined in Section 1 hereof.

WHEREAS:

Subject to the terms and conditions set forth in this Agreement, the Company may, in its sole discretion, sell to the Investor, and the Investor wishes to buy from the Company, up to Fifty Million Dollars (\$50,000,000) of the Company's common stock, par value \$0.0001 per share (the "Common Stock"). The shares of Common Stock to be purchased hereunder (including the Initial Purchase Shares (as defined in Section 2(a) hereof)) are referred to herein as the "Purchase Shares."

NOW THEREFORE, in consideration of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and the Investor hereby agree as follows:

1. CERTAIN DEFINITIONS.

For purposes of this Agreement, the following terms shall have the following meanings:

(a) "Accelerated Purchase Date" means, with respect to any Accelerated Purchase made pursuant to Section 2(c) hereof, the Business Day immediately following the applicable Regular Purchase Date with respect to the corresponding Regular Purchase made pursuant to Section 2(b) hereof.

(b) "Accelerated Purchase Minimum Price Threshold" means, with respect to any Accelerated Purchase made pursuant to Section 2(c) hereof, any minimum per share price threshold set forth by the Company in the applicable Accelerated Purchase Notice.

(c) "Accelerated Purchase Notice" means, with respect to an Accelerated Purchase made pursuant to Section 2(c) hereof, an irrevocable written notice from the Company to the Investor directing the Investor to purchase the applicable Accelerated Purchase Share Amount at the Accelerated Purchase Price on the Accelerated Purchase Date for such Accelerated Purchase in accordance with this Agreement, and specifying any Additional Accelerated Purchase Minimum Price Threshold determined by the Company.

(d) "Accelerated Purchase Price" means, with respect to an Accelerated Purchase made pursuant to Section 2(c) hereof, the lower of ninety-seven percent (97%) of (i) the VWAP for the period beginning at 9:30:01 a.m., Eastern time, on the applicable Accelerated Purchase Date, or such other time publicly announced by the Principal Market as the official open (or commencement) of trading on the Principal Market on such applicable Accelerated Purchase Date (the "Accelerated Purchase Commencement Time"), and ending at the earliest of (A) 4:00:00 p.m., Eastern time, on such applicable Accelerated Purchase Date, or such other time publicly announced by the Principal Market as the official close of trading on the Principal Market on such applicable Accelerated Purchase Date, (B) such time, from and after the Accelerated Purchase Commencement Time for such Accelerated Purchase, that the total number (or volume) of Common Stock traded on the Principal Market has exceeded the applicable Accelerated Purchase Share Volume Maximum, and (C) such time, from and after the Accelerated Purchase Commencement Time for such Accelerated Purchase, that the Sale Price has fallen below the applicable

Accelerated Purchase Minimum Price Threshold (such earliest of (i)(A), (i)(B) and (i)(C) above, the "Accelerated Purchase Termination Time"), and (ii) the Closing Sale Price of the Common Stock on such applicable Accelerated Purchase Date (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction).

(e) "Accelerated Purchase Share Amount" means, with respect to an Accelerated Purchase made pursuant to Section 2(c) hereof or an Additional Accelerated Purchase made pursuant to Section 2(d) hereof, the number of Purchase Shares directed by the Company to be purchased by the Investor in a Purchase Notice, which number of Purchase Shares shall not exceed the lesser of (i) 300% of the applicable Regular Purchase Share Limit for the corresponding Regular Purchase and (ii) 25% of the total volume of Common Stock traded on the Principal Market during the Accelerated Purchase Period or the Additional Accelerated Purchase Period, as applicable.

(f) "Accelerated Purchase Share Percentage" means, with respect to an Accelerated Purchase made pursuant to Section 2(c) hereof, twenty-five percent (25%).

(g) "Accelerated Purchase Share Volume Maximum" means, with respect to an Accelerated Purchase made pursuant to Section 2(c) hereof, a number of shares of Common Stock equal to (i) the applicable Accelerated Purchase Share Amount properly directed by the Company to be purchased by the Investor in the applicable Accelerated Purchase Notice for such Accelerated Purchase, divided by (ii) the Accelerated Purchase Share Percentage (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction).

(h) "Additional Accelerated Purchase Date" means, with respect to an Additional Accelerated Purchase made pursuant to Section 2(d) hereof, the Business Day (i) that is the Accelerated Purchase Date with respect to the corresponding Accelerated Purchase referred to in Section 2(c) hereof and (ii) on which the Investor receives, prior to 1:00 p.m., Eastern time, on such Business Day, a valid Additional Accelerated Purchase Notice for such Additional Accelerated Purchase in accordance with this Agreement.

(i) "Additional Accelerated Purchase Minimum Price Threshold" means, with respect to an Additional Accelerated Purchase made pursuant to Section 2(d) hereof, any minimum per share price threshold set forth by the Company in the applicable Additional Accelerated Purchase Notice.

(j) "Additional Accelerated Purchase Notice" means, with respect to an Additional Accelerated Purchase made pursuant to Section 2(d) hereof, an irrevocable written notice from the Company to the Investor directing the Investor to purchase the applicable Additional Accelerated Purchase Share Amount at the Additional Accelerated Purchase Price for such Additional Accelerated Purchase in accordance with this Agreement, and specifying any Additional Accelerated Purchase Minimum Price Threshold determined by the Company.

(k) "Additional Accelerated Purchase Price" means, with respect to an Additional Accelerated Purchase made pursuant to Section 2(d) hereof, the lower of ninety-seven percent (97%) of (i) the VWAP for the period on the applicable Additional Accelerated Purchase Date, beginning at the latest of (A) the applicable Accelerated Purchase Termination Time with respect to the corresponding Accelerated Purchase referred to in Section 2(d) hereof on such Additional Accelerated Purchase Date, (B) the applicable Additional Accelerated Purchase Termination Time with respect to the most recently completed prior Additional Accelerated Purchase on such Additional Accelerated Purchase Date, as applicable, and (C) the time at which all Purchase Shares subject to all prior Accelerated Purchases and Additional Accelerated Purchases (as applicable), including, without limitation, those that have been effected on the same Business Day as the applicable Additional Accelerated Purchase Date with respect to which the applicable Additional

Accelerated Purchase relates, have theretofore been received by the Investor as DWAC Shares in accordance with this Agreement (such latest of (i)(A), (i)(B) and (i)(C) above, the "Additional Accelerated Purchase Commencement Time"), and ending at the earliest of (X) 4:00 p.m., Eastern time, on such Additional Accelerated Purchase Date, or such other time publicly announced by the Principal Market as the official close of trading on the Principal Market on such Additional Accelerated Purchase Date, (Y) such time, from and after the Additional Accelerated Purchase Commencement Time for such Additional Accelerated Purchase, that the total number (or volume) of shares of Common Stock traded on the Principal Market has exceeded the applicable Additional Accelerated Purchase Share Volume Maximum, and (Z) such time, from and after the Additional Accelerated Purchase Commencement Time for such Additional Accelerated Purchase, that the Sale Price has fallen below the applicable Additional Accelerated Purchase Minimum Price Threshold (such earliest of (i)(X), (i)(Y) and (i)(Z) above, the "Additional Accelerated Purchase Termination Time"), and (ii) the Closing Sale Price of the Common Stock on such Additional Accelerated Purchase Date (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction).

(l) "Additional Accelerated Purchase Share Amount" means, with respect to an Additional Accelerated Purchase made pursuant to Section 2(d) hereof, the number of Purchase Shares directed by the Company to be purchased by the Investor on an Additional Accelerated Purchase Notice, which number of Purchase Shares shall not exceed the lesser of (i) 300% of the number of Purchase Shares directed by the Company to be purchased by the Investor pursuant to the corresponding Regular Purchase Notice for the corresponding Regular Purchase referred to in Section 2(d) hereof (subject to the Purchase Share limitations contained in Section 2(b) hereof) and (ii) an amount equal to (A) the Additional Accelerated Purchase Share Percentage multiplied by (B) the total number (or volume) of shares of Common Stock traded on the Principal Market during the period on the applicable Additional Accelerated Purchase Date beginning at the Additional Accelerated Purchase Commencement Time for such Additional Accelerated Purchase and ending at the Additional Accelerated Purchase Termination Time for such Additional Accelerated Purchase.

(m) "Additional Accelerated Purchase Share Percentage" means, with respect to an Additional Accelerated Purchase made pursuant to Section 2(d) hereof, twenty-five percent (25%).

(n) "Additional Accelerated Purchase Share Volume Maximum" means, with respect to an Additional Accelerated Purchase made pursuant to Section 2(d) hereof, a number of shares of Common Stock equal to (i) the applicable Additional Accelerated Purchase Share Amount properly directed by the Company to be purchased by the Investor pursuant to the applicable Additional Accelerated Purchase Notice for such Additional Accelerated Purchase, divided by (ii) the Additional Accelerated Purchase Share Percentage (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction).

(o) "Alternate Adjusted Regular Purchase Share Limit" means, with respect to a Regular Purchase made pursuant to Section 2(b) hereof, the maximum number of Purchase Shares which, taking into account the applicable per share Purchase Price therefor calculated in accordance with this Agreement, would enable the Company to deliver to the Investor, on the applicable Regular Purchase Date for such Regular Purchase, a Regular Purchase Notice for a Purchase Amount equal to, or as closely approximating without exceeding, Five Hundred Thousand Dollars (\$500,000).

(p) "Available Amount" means, initially, Fifty Million Dollars (\$50,000,000) in the aggregate, which amount shall be reduced by the Purchase Amount each time the Investor purchases Common Stock pursuant to Section 2 hereof.

- (q) "Bankruptcy Law" means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors.
- (r) "Business Day," means any day on which the Principal Market is open for trading, including any day on which the Principal Market is open for trading for a period of time less than the customary time.
- (s) "Closing Sale Price" means, for any security as of any date, the last closing sale price for such security on the Principal Market as reported by the Principal Market.
- (t) "Commitment Shares" shall have the meaning ascribed to such term in Section 5(e) herein.
- (u) "Confidential Information" means any information disclosed by either party to the other party, either directly or indirectly, in writing, orally or by inspection of tangible objects (including, without limitation, documents, prototypes, samples, plant and equipment), which is designated as "Confidential," "Proprietary" or some similar designation. Information communicated orally shall be considered Confidential Information if such information is confirmed in writing as being Confidential Information within ten (10) Business Days after the initial disclosure. Confidential Information may also include information disclosed to a disclosing party by third parties. Confidential Information shall not, however, include any information which (i) was publicly known and made generally available in the public domain prior to the time of disclosure by the disclosing party; (ii) becomes publicly known and made generally available after disclosure by the disclosing party to the receiving party through no action or inaction of the receiving party; (iii) is already in the possession of the receiving party without confidential restriction at the time of disclosure by the disclosing party as shown by the receiving party's files and records immediately prior to the time of disclosure; (iv) is obtained by the receiving party from a third party without a breach of such third party's obligations of confidentiality; or (v) is independently developed by the receiving party without use of or reference to the disclosing party's Confidential Information, as shown by documents and other competent evidence in the receiving party's possession.
- (v) "DTC" means The Depository Trust Company, or any successor performing substantially the same function for the Company.
- (w) "DWAC Shares" means shares of Common Stock that are (i) issued in electronic form, (ii) freely tradable and transferable and without restriction on resale and (iii) timely credited by the Company to the Investor's or its designee's specified Deposit/Withdrawal at Custodian (DWAC) account with DTC under its Fast Automated Securities Transfer (FAST) Program, or any similar program hereafter adopted by DTC performing substantially the same function.
- (x) "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.
- (y) "Floor Price" means \$1.00, which shall be adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction and, effective upon the consummation of any of the foregoing, the Floor Price shall mean the lower of (i) the adjusted price and (ii) \$1.00.
- (z) "Fully Adjusted Regular Purchase Share Limit" means, with respect to any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction from and after the date of this Agreement, the Regular Purchase Share Limit (as defined in Section 2(b), hereof) in effect on the applicable date of determination, after giving effect to the full proportionate adjustment thereto made pursuant to Section 2(c) hereof for or in respect of such reorganization, recapitalization, non-cash dividend, stock split or other similar transaction.

(aa) "Material Adverse Effect" means any material adverse effect on (i) the enforceability of any Transaction Document, (ii) the results of operations, assets, business or financial condition of the Company and its Subsidiaries, taken as a whole, other than any material adverse effect that resulted exclusively from (A) any change in the United States or foreign economies or securities or financial markets in general that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (B) any change that generally affects the industry in which the Company and its Subsidiaries operate that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (C) any change arising in connection with earthquakes, other acts of God, a pandemic, hostilities, acts of war, sabotage or terrorism or military actions or any escalation or material worsening of any such pandemic, hostilities, acts of war, sabotage or terrorism or military actions existing as of the date hereof, (D) any action taken by the Investor, its affiliates or its or their successors and assigns with respect to the transactions contemplated by this Agreement, (E) the effect of any change in Applicable Laws or accounting rules that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, or (F) any change resulting from compliance with terms of this Agreement or the consummation of the transactions contemplated by this Agreement, or (iii) the Company's ability to perform in any material respect on a timely basis its obligations under any Transaction Document to be performed as of the date of determination.

(bb) "Maturity Date" means the first day of the month immediately following the thirty-six (36) month anniversary of the Commencement Date.

(cc) "New Registration Statement" has the meaning set forth in the Registration Rights Agreement.

(dd) "PEA Period" means the period commencing at 9:30 a.m., Eastern time, on the tenth (10th) Business Day immediately prior to the filing of any post-effective amendment to the Registration Statement (as defined herein) or New Registration Statement (as such term is defined in the Registration Rights Agreement), and ending at 9:30 a.m., Eastern time, on the Business Day immediately following, the effective date of any post-effective amendment to the Registration Statement (as defined herein) or New Registration Statement (as such term is defined in the Registration Rights Agreement).

(ee) "Person" means an individual or entity including but not limited to any limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization and a government or any department or agency thereof.

(ff) "Principal Market" means The Nasdaq Capital Market (or any nationally recognized successor thereto); provided, however, that in the event the Company's Common Stock is ever listed or traded on The Nasdaq Global Select Market, The Nasdaq Global Market, the New York Stock Exchange, the NYSE American, the NYSE Arca, the OTC Bulletin Board, or the OTCQX or OTCQB operated by the OTC Markets Group, Inc. (or any nationally recognized successor to any of the foregoing), then the "Principal Market" shall mean such other market or exchange on which the Company's Common Stock is then listed or traded.

(gg) "Purchase" means any Regular Purchase, Accelerated Purchase or Additional Accelerated Purchase made hereunder, as applicable.

(hh) "Purchase Amount" means, with respect to the Initial Purchase, any Regular Purchase, Accelerated Purchase or Additional Accelerated Purchase made hereunder, as applicable, the portion of the Available Amount to be purchased by the Investor pursuant to Section 2 hereof.

(ii) "Purchase Notice" means a notice delivered to the Investor pursuant to Section 2 with respect to any Regular Purchase, Accelerated Purchase or Additional Accelerated Purchase, respectively.

(jj) "Purchase Price" means, with respect to a Regular Purchase made pursuant to Section 2(b) hereof, the lower of: (i) the lowest Sale Price on the Purchase Date for such Regular Purchase and (ii) the arithmetic average of the three (3) lowest Closing Sale Prices for the Common Stock during the ten (10) consecutive Business Days ending on the Business Day immediately preceding such Purchase Date for such Regular Purchase (in each case, to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction that occurs on or after the date of this Agreement).

(kk) "Registration Rights Agreement" means that certain Registration Rights Agreement, of even date herewith between the Company and the Investor.

(ll) "Regular Purchase Date" means, with respect to a Regular Purchase made pursuant to Section 2(b) hereof, the Business Day for which the Investor receives, after 4:00 p.m., Eastern time on such Business Day, or thereafter as permitted by Section 2(b) hereof, a valid Purchase Notice for such Regular Purchase in accordance with this Agreement; provided that any Business Day that is twenty (20) days or less before the filing of any post-effective amendment to the Registration Statement or New Registration Statement, and until the effective date of any such post-effective amendment to the Registration Statement or New Registration Statement, shall not be a Regular Purchase Date.

(mm) "Regular Purchase Notice" means, with respect to a Regular Purchase pursuant to Section 2(c) hereof, an irrevocable written notice from the Company to the Investor directing the Investor to buy a specified number of Purchase Shares (subject to the Purchase Share limitations contained in Section 2(c) hereof) at the applicable Purchase Price for such Regular Purchase in accordance with this Agreement.

(nn) "Sale Price" means any sale price for the Common Stock on the Principal Market as reported by the Principal Market.

(oo) "SEC" means the U.S. Securities and Exchange Commission.

(pp) "Securities" means, collectively, the Purchase Shares and the Commitment Shares.

(qq) "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(rr) "Subsidiary" means any Person the Company wholly owns or controls, or in which the Company, directly or indirectly, owns a majority of the voting stock or similar voting interest, in each case that would be disclosable pursuant to Item 601(b)(21) of Regulation S-K promulgated under the Securities Act.

(ss) "Transaction Documents" means, collectively, this Agreement and the schedules and exhibits hereto, the Registration Rights Agreement and the schedules and exhibits thereto and each of the other agreements, documents, certificates and instruments entered into or furnished by the parties hereto in connection with the transactions contemplated hereby and thereby.

(tt) "Transfer Agent" means Continental Stock Transfer & Trust Company, or such other Person who is then serving as the transfer agent for the Company in respect of the Common Stock.

(uu) "VWAP" means in respect of an applicable Accelerated Purchase Date, the volume weighted average price of the Common Stock on the Principal Market, as reported on the Principal Market or by another reputable source such as Bloomberg, L.P.

2. PURCHASE OF COMMON STOCK.

Subject to the terms and conditions set forth in this Agreement, the Company has the right, but not the obligation, to sell to the Investor, in the Company's sole and absolute discretion, and the Investor has the obligation to purchase from the Company, Purchase Shares as follows:

(a) Initial Purchase of Common Stock. Upon the satisfaction of the conditions set forth in Sections 7 and 8 hereof (the "Commencement") and the date of satisfaction of such conditions the "Commencement Date"), the Company shall sell, and the Investor shall purchase, a number of Purchase Shares equal to Three Million Dollars (\$3,000,000) divided by the Purchase Price, calculated as of the effective date of the Registration Statement (such purchase, the "Initial Purchase" and such Purchase Shares, the "Initial Purchase Shares").

(b) Commencement of Regular Purchases of Common Stock. Upon the Commencement Date and thereafter, the Company shall have the right, but not the obligation, to direct the Investor, by its delivery to the Investor of a Regular Purchase Notice from time to time on any Regular Purchase Date on which the Closing Sale Price is not below the Floor Price, to purchase up to Thirty Thousand (30,000) Purchase Shares, subject to adjustment as set forth below in this Section 2(b) (such maximum number of Purchase Shares, as may be adjusted from time to time, the "Regular Purchase Share Limit"), at the Purchase Price on the Purchase Date (each such purchase a "Regular Purchase"); provided, however, that the Regular Purchase Share Limit shall be increased to: (i) Fifty Thousand (50,000) Purchase Shares, if the Closing Sale Price of the Common Stock on the applicable Purchase Date is not below \$5.00, and (ii) Seventy-Five Thousand (75,000) Purchase Shares, if the Closing Sale Price of the Common Stock on the applicable Purchase Date is not below \$10.00 (all of which share and dollar amounts shall be appropriately proportionately adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction); provided that if, after giving effect to the full proportionate adjustment to the Regular Purchase Share Limit therefor, the Fully Adjusted Regular Purchase Share Limit then in effect would preclude the Company from delivering to the Investor a Regular Purchase Notice hereunder for a Purchase Amount (calculated by multiplying (X) the number of Purchase Shares equal to the Fully Adjusted Regular Purchase Share Limit, by (Y) the Purchase Price per Purchase Share covered by such Regular Purchase Notice on the applicable Purchase Date therefor) equal to or greater than the Alternate Adjusted Regular Purchase Share Limit, the Regular Purchase Share Limit for such Regular Purchase Notice shall not be fully adjusted to equal the applicable Fully Adjusted Regular Purchase Share Limit, but rather the Regular Purchase Share Limit for such Regular Purchase Notice shall be adjusted to equal the applicable Alternate Adjusted Regular Purchase Share Limit as of the applicable Purchase Date for such Regular Purchase Notice; and provided, further, however, that the Investor's committed obligation under any single Regular Purchase, other than any Regular Purchase with respect to which an Alternate Adjusted Regular Purchase Share Limit shall apply, shall not exceed Two Million Five Hundred Thousand Dollars (\$2,500,000) provided, further, however, that the parties may mutually agree to increase the Regular Purchase Share Limit for any Regular Purchase to a number of shares greater than the Regular Purchase Share limit then in effect. If the Company delivers any Regular Purchase Notice for a Purchase Amount in excess of the limitations contained in the immediately preceding sentence, such Regular Purchase Notice shall be void *ab initio* only with respect to the extent of the amount by which the number of Purchase Shares set forth in such Regular Purchase Notice exceeds the number of Purchase

Shares which the Company is permitted to include in such Purchase Notice in accordance herewith, and the Investor shall have no obligation to purchase such excess Purchase Shares in respect of such Regular Purchase Notice; provided, however, that the Investor shall remain obligated to purchase the number of Purchase Shares which the Company is permitted to include in such Regular Purchase Notice. The Company may deliver a Regular Purchase Notice to the Investor as often as every Business Day, so long as the Company has not failed to deliver Purchase Shares for the most recent prior Regular Purchase. Notwithstanding the foregoing, the Company shall not deliver any Regular Purchase Notices during the PEA Period.

(c) Accelerated Purchases. Subject to the terms and conditions of this Agreement, from and after one (1) Business Day following the Commencement Date, in addition to purchases of Purchase Shares as described in Section 2(b) above, the Company shall also have the right, but not the obligation, to direct the Investor, by its delivery to the Investor of an Accelerated Purchase Notice from time to time in accordance with this Agreement, to purchase the applicable Accelerated Purchase Share Amount at the Accelerated Purchase Price on the Accelerated Purchase Date therefor in accordance with this Agreement (each such purchase, an "Accelerated Purchase"); provided however, that the parties may mutually agree to increase the Accelerated Purchase Share Amount for any Accelerated Purchase. The Company may deliver an Accelerated Purchase Notice to the Investor only on a Purchase Date on which the Company also properly submitted a Regular Purchase Notice providing for a Regular Purchase of a number of Purchase Shares not less than the Regular Purchase Share Limit then in effect on such Purchase Date in accordance with this Agreement (including, without limitation, giving effect to any automatic increase to the Regular Purchase Share Limit as a result of the Closing Sale Price of the Common Stock exceeding certain thresholds set forth in Section 2(b) above on such Purchase Date and any other adjustments to the Regular Purchase Share Limit, in each case pursuant to Section 2(b) above). If the Company delivers any Accelerated Purchase Notice directing the Investor to purchase an amount of Purchase Shares that exceeds the Accelerated Purchase Share Amount that the Company is then permitted to include in such Accelerated Purchase Notice, such Accelerated Purchase Notice shall be void *ab initio* only with respect to the extent of the amount by which the number of Purchase Shares set forth in such Accelerated Purchase Notice exceeds the Accelerated Purchase Share Amount that the Company is then permitted to include in such Accelerated Purchase Notice (which shall be confirmed in an Accelerated Purchase Confirmation), and the Investor shall have no obligation to purchase such excess Purchase Shares in respect of such Accelerated Purchase Notice; provided, however, that the Investor shall remain obligated to purchase the Accelerated Purchase Share Amount which the Company is permitted to include in such Accelerated Purchase Notice. Within one (1) Business Day after completion of each Accelerated Purchase Date for an Accelerated Purchase, the Investor will provide to the Company a written confirmation of such Accelerated Purchase setting forth the applicable Accelerated Purchase Share Amount and Accelerated Purchase Price for such Accelerated Purchase (each, an "Accelerated Purchase Confirmation"). Notwithstanding the foregoing, the Company shall not deliver any Accelerated Purchase Notices during the PEA Period.

(d) Additional Accelerated Purchases. On any Accelerated Purchase Date, provided that the Company properly submitted a Purchase Notice for an Accelerated Purchase and subject to the terms and conditions of this Agreement, the Company shall also have the right, but not the obligation, to direct the Investor, by its delivery to the Investor of a Purchase Notice from time to time in accordance with this Agreement, to purchase the applicable Accelerated Purchase Share Amount (each such purchase, an "Additional Accelerated Purchase") at the Accelerated Purchase Price. The Company may deliver Purchase Notices to the Investor for multiple Additional Accelerated Purchases on an Accelerated Purchase Date subject to the second sentence of Section 2(h). Subject to the terms and conditions of this Agreement, from and after one Business Day following the Commencement Date, in addition to purchases of Purchase Shares as described in Section 2(b) and Section 2(c) above, the Company shall also have the right, but not the obligation, to direct the Investor, by its timely delivery to the Investor of an Additional Accelerated Purchase Notice on an Additional Accelerated Purchase Date in accordance with this Agreement, to

purchase the applicable Additional Accelerated Purchase Share Amount at the applicable Additional Accelerated Purchase Price therefor in accordance with this Agreement (each such purchase, an “Additional Accelerated Purchase”); provided however, that the parties may mutually agree to increase the Additional Accelerated Purchase Share Amount for any Additional Accelerated Purchase. The Company may deliver multiple Additional Accelerated Purchase Notices to the Investor on an Additional Accelerated Purchase Date; provided, however, that the Company may deliver an Additional Accelerated Purchase Notice to the Investor only (i) on a Business Day that is also the Accelerated Purchase Date for an Accelerated Purchase with respect to which the Company properly submitted to the Investor an Accelerated Purchase Notice in accordance with this Agreement on the applicable Purchase Date for a Regular Purchase of a number of Purchase Shares not less than the Regular Purchase Share Limit then in effect in accordance with this Agreement (including, without limitation, giving effect to any automatic increase to the Regular Purchase Share Limit as a result of the Closing Sale Price of the Common Stock exceeding certain thresholds set forth in Section 2(b) above on such Purchase Date and any other adjustments to the Regular Purchase Share Limit, in each case pursuant to Section 2(b) above), and (ii) if all Purchase Shares subject to all prior Regular Purchases, Accelerated Purchases and Additional Accelerated Purchases, including, without limitation, those that have been effected on the same Business Day as the applicable Additional Accelerated Purchase Date with respect to which the applicable Additional Accelerated Purchase relates, in each case have theretofore been received by the Investor as DWAC Shares in accordance with this Agreement. If the Company delivers any Additional Accelerated Purchase Notice directing the Investor to purchase an amount of Purchase Shares that exceeds the Additional Accelerated Purchase Share Amount that the Company is then permitted to include in such Additional Accelerated Purchase Notice, such Additional Accelerated Purchase Notice shall be void *ab initio* only with respect to the extent of the amount by which the number of Purchase Shares set forth in such Additional Accelerated Purchase Notice exceeds the Additional Accelerated Purchase Share Amount that the Company is then permitted to include in such Additional Accelerated Purchase Notice (which shall be confirmed in an Additional Accelerated Purchase Confirmation), and the Investor shall have no obligation to purchase such excess Purchase Shares in respect of such Additional Accelerated Purchase Notice; provided, however, that the Investor shall remain obligated to purchase the Additional Accelerated Purchase Share Amount which the Company is permitted to include in such Additional Accelerated Purchase Notice. Within one (1) Business Day after completion of each Additional Accelerated Purchase Date, the Investor will provide to the Company a written confirmation of each Additional Accelerated Purchase on such Additional Accelerated Purchase Date setting forth the applicable Additional Accelerated Purchase Share Amount and Additional Accelerated Purchase Price for each such Additional Accelerated Purchase on such Additional Accelerated Purchase Date (each, an “Additional Accelerated Purchase Confirmation”). Notwithstanding the foregoing, the Company shall not deliver any Additional Accelerated Purchase Notices during the PEA Period.

(e) Payment for Purchase Shares. For the Initial Purchase and each Regular Purchase, the Investor shall pay to the Company an amount equal to the Purchase Amount with respect to such Initial Purchase or Regular Purchase, as applicable, as full payment for such Purchase Shares via wire transfer of immediately available funds on the same Business Day that the Investor receives such Purchase Shares, if such Purchase Shares are received by the Investor before 1:00 p.m., Eastern time, or, if such Purchase Shares are received by the Investor after 1:00 p.m., Eastern time, the next Business Day. Within one (1) Business Day after completion of each Accelerated Purchase Date for an Accelerated Purchase or Additional Accelerated Purchase, respectively, the Investor will provide to the Company a written confirmation of such Accelerated Purchase setting forth the applicable Accelerated Purchase Share Amount and Accelerated Purchase Price for such purchase. For each Accelerated Purchase and each Additional Accelerated Purchase, the Investor shall pay to the Company an amount equal to the Purchase Amount with respect to such purchase as full payment for such Purchase Shares via wire transfer of immediately available funds no later than the second Business Day following the date that the Investor receives the Purchase Shares for such Purchase. If the Company or the Transfer Agent shall fail for any reason or for no reason to electronically transfer any Purchase Shares as DWAC Shares with respect to any Purchase within two

(2) Business Days following the receipt by the Company of the Purchase Price or Accelerated Purchase Price, as applicable, for any Purchase therefor in compliance with this Section 2(e), and if on or after such Business Day the Investor purchases (in an open market transaction or otherwise) Common Stock to deliver in satisfaction of a sale by the Investor of Purchase Shares in anticipation of receiving Purchase Shares from the Company with respect to such Purchase, then the Company shall, within two (2) Business Days after the Investor's request, either (i) pay cash to the Investor in an amount equal to the Investor's total purchase price (including customary brokerage commissions, if any) for the Common Stock so purchased (the "Cover Price"), at which point the Company's obligation to deliver such Purchase Shares as DWAC Shares shall terminate, or (ii) promptly honor its obligation to deliver to the Investor such Purchase Shares as DWAC Shares and pay cash to the Investor in an amount equal to the excess (if any) of the Cover Price over the total Purchase Amount paid by the Investor pursuant to this Agreement for all of the Purchase Shares to be purchased by the Investor in connection with such purchases. All payments made under this Agreement shall be made in lawful money of the United States of America or wire transfer of immediately available funds to such account as the Company may from time to time designate by written notice in accordance with the provisions of this Agreement. Whenever any amount expressed to be due by the terms of this Agreement is due on any day that is not a Business Day, the same shall instead be due on the next succeeding day that is a Business Day.

(f) Compliance with Rules of the Principal Market. Notwithstanding anything in this Agreement to the contrary, and in addition to the limitations set forth in Section 2(g), the Company shall not issue more than 8,133,926 shares (including the Commitment Shares) of Common Stock (the "Exchange Cap") under this Agreement, which equals 19.99% of the Company's outstanding shares of Common Stock as of the date hereof, unless stockholder approval is obtained to issue in excess of the Exchange Cap; provided, however, that the foregoing limitation shall not apply if at any time the Exchange Cap is reached and at all times thereafter the average price paid for all shares of Common Stock issued under this Agreement is equal to or greater than \$6.42 (the "Minimum Price"), a price equal to the lower of (i) the Nasdaq Official Closing Price immediately preceding the execution of this Agreement or (ii) the arithmetic average of the five (5) Nasdaq Official Closing Prices for the Common Stock immediately preceding the execution of this Agreement, as calculated in accordance with the rules of the Principal Market (in such circumstance, for purposes of the Principal Market, the transaction contemplated hereby would not be "below market" and the Exchange Cap would not apply). Notwithstanding the foregoing, the Company shall not be required or permitted to issue, and the Investor shall not be required to purchase, any shares of Common Stock under this Agreement if such issuance would violate the rules or regulations of the Principal Market. The Company may, in its sole discretion, determine whether to obtain stockholder approval to issue more than 19.99% of its outstanding shares of Common Stock hereunder if such issuance would require stockholder approval under the rules or regulations of the Principal Market. The Exchange Cap shall be reduced, on a share-for-share basis, by the number of shares of Common Stock issued or issuable that may be aggregated with the transactions contemplated by this Agreement under applicable rules of the Principal Market.

(g) Beneficial Ownership Limitation. Notwithstanding anything to the contrary contained in this Agreement, the Company shall not issue or sell, and the Investor shall not purchase or acquire, any Common Stock under this Agreement which, when aggregated with all other Common Stock then beneficially owned by the Investor and its affiliates (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 promulgated thereunder) would result in the beneficial ownership by the Investor and its affiliates of more than 4.99% of the then issued and outstanding Common Stock (the "Beneficial Ownership Limitation"). The Investor and the Company shall each cooperate in good faith in the determinations required hereby and the application hereof. The Investor's written certification to the Company of the applicability of the Beneficial Ownership Limitation, and the resulting effect thereof hereunder at any time, shall be conclusive with respect to the applicability thereof and such result absent manifest error.

(h) Excess Share Limitations. If the Company delivers any Purchase Notice for a Purchase Amount in excess of the limitations contained in this Section 2, such Purchase Notice shall be void *ab initio* to the extent of the amount by which the number of Purchase Shares set forth in such Purchase Notice exceeds the number of Purchase Shares which the Company is permitted to include in such Purchase Notice in accordance herewith, and the Investor shall have no obligation to purchase such excess Purchase Shares in respect of such Purchase Notice; provided, however, that the Investor shall remain obligated to purchase the number of Purchase Shares which the Company is permitted to include in such Purchase Notice. If the Company delivers a Purchase Notice, and all Purchase Shares subject to all prior Purchases have not theretofore been received by the Investor as DWAC Shares in accordance with this Agreement, such Purchase Notice shall not be deemed to have been delivered and the Investor shall not be required to purchase any Purchase Shares until all Purchase Shares for such prior Purchases have been received by the Investor as DWAC Shares. If any issuance of Purchase Shares would result in the issuance of a fraction of a share of Common Stock, the Company shall round down such fraction to the nearest whole share and no fractional shares will be issued.

(i) Adjustments for Shares and Prices. Except as specifically stated otherwise, all share-related and dollar-related limitations contained in this Section 2, shall be adjusted to take into account any reorganization, recapitalization, non-cash dividend, stock split, reverse stock, split or other similar transaction effected with respect to the Common Stock.

3. INVESTOR'S REPRESENTATIONS AND WARRANTIES.

The Investor represents and warrants to the Company that as of the date hereof and as of the Commencement Date:

(a) Organization, Authority. The Investor is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, with the requisite power and authority to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder and thereunder.

(b) Accredited Investor Status. The Investor is an "accredited investor" as that term is defined in Rule 501(a)(3) of Regulation D promulgated under the Securities Act.

(c) Reliance on Exemptions. The Investor understands that the Securities may be offered and sold to it in reliance on specific exemptions from the registration requirements of United States federal and state securities laws and that the Company is relying in part upon the truth and accuracy of, and the Investor's compliance with, the representations, warranties, agreements, acknowledgments and understandings of the Investor set forth herein in order to determine the availability of such exemptions and the eligibility of the Investor to acquire the Securities.

(d) Investment Purpose. The Investor is acquiring the Securities as principal for its own account for investment only and not with a view to or for distributing or reselling such Securities or any part thereof in violation of the Securities Act or any applicable state securities law, has no present intention of distributing any of such Securities in violation of the Securities Act or any applicable state securities law and has no direct or indirect arrangement or understandings with any other Persons to distribute or regarding the distribution of such Securities in violation of the Securities Act or any applicable state securities law (this representation and warranty not limiting the Investor's right to sell the Securities at any time pursuant to the Registration Statement described herein or otherwise in compliance with applicable federal and state securities laws). The Investor is acquiring the Securities hereunder in the ordinary course of its business.

(e) Information. The Investor understands that its investment in the Securities involves a high degree of risk. The Investor (i) is able to bear the economic risk of an investment in the Securities including a total loss thereof, (ii) has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the proposed investment in the Securities and (iii) has had an opportunity to ask questions of and receive answers from the officers of the Company concerning the financial condition and business of the Company and other matters related to an investment in the Securities. Neither such inquiries nor any other due diligence investigations conducted by the Investor or its representatives shall modify, amend or affect the Investor's right to rely on the Company's representations and warranties contained in Section 4 below. The Investor has sought such accounting, legal and tax advice as it has considered necessary to make an informed investment decision with respect to its acquisition of the Securities and is not relying on any accounting, legal, tax or other advice from the Company or its officers, employees, representatives or advisors. The Investor acknowledges and agrees that the Company neither makes nor has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 4 hereof.

(f) No Governmental Review. The Investor understands that no U.S. federal or state agency or any other government or governmental agency has passed on or made any recommendation or endorsement of the Securities or the fairness or suitability of an investment in the Securities nor have such authorities passed upon or endorsed the merits of the offering of the Securities.

(g) Transfer or Sale. The Investor understands that (i) the Securities may not be offered for sale, sold, assigned or transferred unless (A) registered pursuant to the Securities Act or (B) an exemption exists permitting such Securities to be sold, assigned or transferred without such registration; (ii) any sale of the Securities made in reliance on Rule 144 promulgated under the Securities Act ("Rule 144") may be made only in accordance with the terms of Rule 144 and further, if Rule 144 is not applicable, any resale of the Securities under circumstances in which the seller (or the Person through whom the sale is made) may be deemed to be an underwriter (as that term is defined in the Securities Act) may require compliance with some other exemption under the Securities Act or the rules and regulations of the SEC thereunder.

(h) Validity; Enforcement. This Agreement and the other Transaction Documents have been duly and validly authorized, executed and delivered on behalf of the Investor and each is a valid and binding agreement of the Investor enforceable against the Investor in accordance with its terms, subject as to enforceability to general principles of equity and to applicable bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws relating to, or affecting generally, the enforcement of applicable creditors' rights and remedies.

(i) Residency. The Investor's principal place of business is in the State of Illinois.

(j) No Short Selling. The Investor represents and warrants to the Company that at no time prior to the date of this Agreement has any of the Investor, its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any (i) "short sale" (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of the Common Stock or (ii) hedging transaction, which establishes a net short position with respect to the Common Stock.

4. REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

The Company represents and warrants to the Investor that as of the date hereof and as of the Commencement Date:

(a) Organization and Qualification. The Company and each of its Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite corporate power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any of its Subsidiaries is in violation or default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents, where such violation or default would not reasonably be expected to result in a Material Adverse Effect. Each of the Company and its Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not reasonably be expected to result in a Material Adverse Effect, and no proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification. The Company has no Subsidiaries except as set forth in the SEC Documents (as defined below).

(b) Authorization; Enforcement; Validity. The Company has the requisite corporate power and authority to enter into and perform its obligations under this Agreement and each of the other Transaction Documents, and to issue the Securities in accordance with the terms hereof and thereof. The execution and delivery of the Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby, including without limitation, the issuance of the Commitment Shares (as defined below in Section 5(e)) and the reservation for issuance and the issuance of the Purchase Shares issuable under this Agreement have been duly authorized by the Company's Board of Directors or a validly authorized committee thereof (collectively, the "Board of Directors"), and no further consent or authorization is required by the Company, its Board of Directors or any committee thereof, or its stockholders (save to the extent provided in this Agreement). This Agreement has been, and each other Transaction Document shall be on the Commencement Date, duly executed and delivered by the Company, and this Agreement constitutes, and each other Transaction Document upon its execution on behalf of the Company, shall constitute, the valid and binding obligations of the Company enforceable against the Company in accordance with their terms, except as such enforceability may be limited by general principles of equity or applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or similar laws relating to, or affecting generally, the enforcement of creditors' rights and remedies. The Board of Directors of the Company has adopted all applicable resolutions (the "Signing Resolutions") to authorize this Agreement and the transactions contemplated hereby. The Signing Resolutions are valid, in full force and effect and have not been modified or supplemented in any respect. The Company has delivered to the Investor a true and correct copy of the Signing Resolutions adopted by the Board of Directors. Except as set forth in this Agreement, no other approvals or consents of the Company's Board of Directors and/or stockholders is necessary under applicable laws and the Company's Certificate of Incorporation in effect on the date hereof (the "Certificate of Incorporation") and/or the Company's Bylaws in effect on the date hereof (the "Bylaws") to authorize the execution and delivery of this Agreement or any of the transactions contemplated hereby, including, but not limited to, the issuance of the Commitment Shares and the issuance of the Purchase Shares.

(c) **Capitalization.** As of the date hereof, the authorized capital stock of the Company is set forth in Schedule 4(c) hereof. Except as disclosed in the SEC Documents (as defined below) or Schedule 4(c), (i) no shares of the Company's capital stock are subject to preemptive rights or any other similar rights or any liens, encumbrances and defects ("Liens") suffered or permitted by the Company, (ii) there are no outstanding debt securities, (iii) except pursuant to stock option or stock purchase plans disclosed in the SEC Documents, there are no outstanding options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company or any of its Subsidiaries, or contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to issue additional shares of capital stock of the Company or any of its Subsidiaries or options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company or any of its Subsidiaries, (iv) except pursuant to employee stock purchase plans, stock option or stock purchase plans disclosed in the SEC Documents, there are no agreements or arrangements under which the Company or any of its Subsidiaries is obligated to register the sale of any of their securities under the Securities Act (except the Registration Rights Agreement), (v) except as disclosed in the SEC documents, there are no outstanding securities or instruments of the Company or any of its Subsidiaries which contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to redeem a security of the Company or any of its Subsidiaries, (vi) there are no securities or instruments containing anti-dilution or similar provisions that will be triggered by the issuance of the Securities as described in this Agreement and (vii) the Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. The Company has furnished to the Investor true and correct copies of the Certificate of Incorporation, and the Bylaws, and summaries of the material terms of all securities convertible into or exercisable for Common Stock, if any, which are not otherwise disclosed in the Registration Statement, any SEC Document or filed as an exhibit thereto.

(d) **Issuance of Securities.** The Securities have been duly authorized for issuance and sale pursuant to this Agreement, and when issued and delivered by the Company against payment therefor in accordance with the terms and conditions of this Agreement, the Securities shall be validly issued, fully paid and nonassessable and free from all taxes, Liens, charges, restrictions (other than such restrictions on transfer arising under the Securities Act prior to the effective date of the Registration Statement registering the resale thereof by the Investor under the Securities Act), rights of first refusal and preemptive rights with respect to the issue thereof, with the holders being entitled to all rights accorded to a holder of Common Stock.

(e) **No Conflicts.** The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated hereby and thereby (including, without limitation, the reservation for issuance and issuance of the Securities) will not (i) result in a violation of the Certificate of Incorporation, any Certificate of Designations, or the Bylaws or (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any material agreement, indenture or instrument to which the Company or any of its Subsidiaries is a party, or result in a violation of any applicable law, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations and the rules and regulations of the Principal Market applicable to the Company or any of its Subsidiaries) or by which any property or asset of the Company or any of its Subsidiaries is bound or affected, except in the case of conflicts, defaults, terminations, amendments, accelerations, cancellations and violations under clauses (i) or (ii), which would not reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary is in violation or default of or under (i) any provision of the Certificate of Incorporation or Bylaws, any Subsidiary's respective certificate or articles of incorporation, any certificate of designation, preferences and rights of any outstanding series of preferred stock, organizational charter or bylaws, respectively, (ii) the terms of any indenture, material contract, lease, mortgage, deed of trust, note agreement, loan agreement or other

agreement, obligation, condition, covenant or instrument to which it is a party or bound or to which its property is subject, or (iii) any judgment, order or decree of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company or any of its properties, which, in the case of clauses (ii) or (iii), could be reasonably expected to have a Material Adverse Effect. The business of the Company and each Subsidiary is not being conducted, and shall not be conducted, in violation of any applicable law, ordinance, regulation of any governmental entity, except for possible violations, the sanctions for which either individually or in the aggregate would not reasonably be expected to have a Material Adverse Effect. Except as specifically contemplated by this Agreement and as required under the Securities Act or applicable state securities laws and the rules and regulations of the Principal Market, the Company is not required to obtain any consent, Authorization or order of, or make any filing or registration with, any court or governmental agency or any regulatory or self-regulatory agency in order for it to execute, deliver or perform any of its obligations under or contemplated by the Transaction Documents in accordance with the terms hereof or thereof. Except as set forth elsewhere in this Agreement, all consents, Authorizations (as defined below), orders, filings and registrations which the Company is required to obtain pursuant to the preceding sentence shall be obtained or effected on or prior to the Commencement Date. Except as disclosed in the SEC Documents, since one year prior to the date hereof, the Company has not received nor delivered any notices or correspondence from or to the Principal Market, other than notices with respect to listing of additional Common Stock and other routine correspondence. Except as disclosed in the SEC Documents, since one year prior to the date hereof, the Principal Market has not commenced any delisting proceedings against the Company.

(f) SEC Documents: Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company with the SEC under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the twelve months preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the "SEC Documents") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Documents prior to the expiration of any such extension. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable. None of the SEC Documents, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Documents comply in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments. Except as set forth in the SEC Documents, the Company has received no notices or correspondence from the SEC for the one year preceding the date hereof. The SEC has not commenced any enforcement proceedings against the Company or any of its Subsidiaries.

(g) Absence of Certain Changes. Except as disclosed in the SEC Documents, since September 30, 2021, there has been no Material Adverse Effect on the business, properties, operations, financial condition or results of operations of the Company or its Subsidiaries. The Company has not taken any steps, and does not currently expect to take any steps, to seek protection pursuant to any Bankruptcy Law nor does the Company or any of its Subsidiaries have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy or insolvency proceedings. The Company is financially solvent and is generally able to pay its debts as they become due.

(h) Absence of Litigation. Except as disclosed in the SEC Documents, there is no action, suit, proceeding, inquiry or investigation before or by any court, government agency, self-regulatory organization or body pending or, to the knowledge of the Company or any of its Subsidiaries, threatened against the Company, the Common Stock or any of the Company's or its Subsidiaries' officers or directors in their capacities as such, which could reasonably be expected to have a Material Adverse Effect.

(i) Acknowledgment Regarding Investor's Status. The Company acknowledges and agrees that the Investor is acting solely in the capacity of arm's length purchaser with respect to the Transaction Documents and the transactions contemplated hereby and thereby. The Company further acknowledges that the Investor is not acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated hereby and thereby and any advice given by the Investor or any of its representatives or agents in connection with the Transaction Documents and the transactions contemplated hereby and thereby is merely incidental to the Investor's purchase of the Securities. The Company further represents to the Investor that the Company's decision to enter into the Transaction Documents has been based solely on the independent evaluation by the Company and its representatives and advisors.

(j) No Integrated or Aggregated Offering. Neither the Company, nor any of its affiliates, nor any Person acting on its or their behalf, has directly or indirectly made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause the transactions contemplated hereby to be integrated or aggregated with prior offerings by the Company in a manner that would require registration of the offer and sale of any of the Securities under the Securities Act, or stockholder approval of the issuance of the Securities pursuant to the rules of the Principal Market on which any of the securities of the Company are listed or designated. The issuance and sale of the Commitment Shares hereunder does not, and subject to the terms of this Agreement, the issuance and sale of the Purchase Shares will not, contravene the rules and regulations of the Principal Market.

(k) Intellectual Property Rights. The Company and its Subsidiaries own or possess (or reasonably believe it can acquire on reasonable terms) adequate rights or licenses to use all material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, Authorizations, trade secrets and rights necessary to conduct their respective businesses as now conducted, except as such failure to own, possess, or acquire such rights would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect. None of the Company's material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, Authorizations, trade secrets or other intellectual property rights have expired or terminated, or, by the terms and conditions thereof, could expire or terminate within two years from the date of this Agreement. The Company and its Subsidiaries do not have any knowledge of any infringement by the Company or its Subsidiaries of any material trademark, trade name rights, patents, patent rights, copyrights, inventions, licenses, service names, service marks, service mark registrations, trade secret or other similar rights of others, or of any such development of similar or identical trade secrets or technical information by others, and there is no claim, action or proceeding being made or brought against, or to the Company's knowledge, being threatened against, the Company or its Subsidiaries regarding trademark, trade name, patents, patent rights, invention, copyright, license, service names, service marks, service mark registrations, trade secret or other infringement, which could reasonably be expected to have a Material Adverse Effect.

(l) Environmental Laws. Except as disclosed in the SEC Documents, the Company and its Subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (“Environmental Laws”), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where, in each of the three foregoing clauses, the failure to so comply could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(m) Title. The Company and its Subsidiaries own no real property. Except as disclosed in the SEC Documents, the Company and its Subsidiaries have good and marketable title in all personal property owned by them (other than intellectual property, which is covered in Section 4(k) above) that is material to the business of the Company and its Subsidiaries, in each case free and clear of all Liens and, except for Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and its Subsidiaries, Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties, and Liens that would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect. Any real property and facilities held under lease by the Company and its Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and its Subsidiaries are in compliance, except those that (i) are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company and its Subsidiaries or (ii) would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect.

(n) Insurance. The Company and each of its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as management of the Company believes to be prudent and customary in the businesses in which the Company and its Subsidiaries are engaged. Neither the Company nor any such Subsidiary has been refused any insurance coverage sought or applied for that would reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect and neither the Company nor any such Subsidiary has any reason to believe that it will not be able to renew its existing or similar insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business.

(o) Regulatory Permits. Except as disclosed in the SEC Documents, the Company and its Subsidiaries possess all material certificates, Authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses, and neither the Company nor any such Subsidiary has received any notice of proceedings relating to the revocation or modification of any such certificate, Authorization or permit, except, in the case of each of the two foregoing clauses, as could not reasonably be expected to have a Material Adverse Effect.

(p) Tax Status. Except as set forth in the SEC Documents, the Company and each of its Subsidiaries has made or filed all federal and state income and all other material tax returns, reports and declarations required by any jurisdiction to which it is subject (unless and only to the extent that the Company and each of its Subsidiaries has set aside on its books provisions reasonably adequate for the payment of all unpaid and unreported taxes) and has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations, except those being contested in good faith and has set aside on its books provision reasonably adequate for the payment of all taxes for periods subsequent to the periods to which such returns, reports or declarations apply, and except as could not reasonably be expected to have a Material Adverse Effect. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim.

(q) Transactions With Affiliates. Except as set forth in the SEC Documents, none of the officers or directors of the Company, or any family member or affiliate of any of the foregoing, has either directly or indirectly any interest in, or is a party to, any transaction that is required to be disclosed as a related party transaction pursuant to Item 404 of Regulation S-K promulgated under the Securities Act.

(r) Application of Takeover Protections. The Company and its board of directors have taken or will take prior to the Commencement Date all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Certificate of Incorporation or the laws of the state of its incorporation, other than Section 203 of the Delaware General Corporation Law, which is or could become applicable to the Investor as a result of the transactions contemplated by this Agreement, including, without limitation, the Company's issuance of the Securities and the Investor's ownership of the Securities.

(s) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents that will be timely publicly disclosed by the Company, the Company confirms that neither it nor any other Person acting on its behalf has provided the Investor or its agents or counsel with any information that it believes constitutes material, non-public information which is not otherwise disclosed in the Registration Statement or the SEC Documents. The Company understands and confirms that the Investor will rely on the foregoing representation in effecting purchases and sales of securities of the Company. All of the disclosure furnished by or on behalf of the Company to the Investor regarding the Company, its business and the transactions contemplated hereby, including the disclosure schedules to this Agreement, is true and correct and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The Company acknowledges and agrees that the Investor neither makes nor has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 3 hereof.

(t) Foreign Corrupt Practices. Neither the Company nor any of its Subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is aware of or has taken any action, directly or indirectly, that would result in a material violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "FCPA"), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA; and the Company, each of its Subsidiaries and, to the knowledge of the Company, its affiliates have conducted their businesses in material compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith. The operations of the Company and each of its Subsidiaries are and have been conducted at all times in material compliance with applicable financial recordkeeping and reporting requirements and the money laundering statutes and the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any applicable governmental agency, including, without limitation, Title 18 U.S. Code section 1956 and 1957, the Patriot Act, the Bank Secrecy Act, and international anti-money laundering principles or procedures by an intergovernmental group or organization, such as the Financial Action Task Force on Money Laundering, of which the United States is a member and with which designation the United States representative to the group or organization continues to concur, all as amended, and any Executive order, directive or regulation pursuant to the authority of any of the foregoing, or any orders or licenses issued thereunder (collectively, the "Money").

Laundering Laws”), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its Subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened. Neither the Company nor any of its Subsidiaries, nor to the knowledge of the Company any of the directors, officers or employees, agents, affiliates or representatives of the Company or each of its Subsidiaries, is an individual or entity that is, or is owned or controlled by an individual or entity that is: (i) the subject of any sanctions administered or enforced by the U.S. Department of Treasury’s Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty’s Treasury, or other relevant sanctions authority (collectively, “Sanctions”), nor (ii) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, the Balkans, Belarus, Burma/Myanmar, Cote D’Ivoire, Cuba, Democratic Republic of Congo, Iran, Iraq, Liberia, Libya, North Korea, Sudan, Syria, Venezuela and Zimbabwe). Neither the Company nor any of its Subsidiaries will, directly or indirectly, knowingly use the proceeds of the transactions contemplated hereby, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other individual or entity: (i) to fund or facilitate any activities or business of or with any individual or entity or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions or (ii) in any other manner that will result in a violation of Sanctions by any individual or entity (including any individual or entity participating in the transactions contemplated hereby, whether as underwriter, advisor, investor or otherwise). For the past five years, neither the Company nor any of its Subsidiaries has knowingly engaged in, and is not now knowingly engaged in, any dealings or transactions with any individual or entity, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(u) DTC Eligibility. The Company, through the Transfer Agent, currently participates in the DTC Fast Automated Securities Transfer (FAST) Program and the Common Stock can be transferred electronically to third parties via the DTC Fast Automated Securities Transfer (FAST) Program.

(v) Sarbanes-Oxley. The Company is in compliance in all material respects with all provisions of the Sarbanes-Oxley Act of 2002, as amended, which are applicable to it as of the date hereof.

(w) Certain Fees. No brokerage or finder’s fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. The Investor shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section 4(w) that may be due in connection with the transactions contemplated by the Transaction Documents. The Company shall pay, and hold the Investor harmless against, any liability, loss or expense (including, without limitation, reasonable attorneys’ fees and reasonable documented out of pocket expenses) arising in connection with any such claim made by a third party for any such fees or commissions.

(x) Investment Company. The Company is not, and immediately after giving effect to the sale of the Purchase Shares in accordance with this Agreement and the application of the proceeds as described in the Registration Statement under the caption “Use of Proceeds,” will not be, an “investment company” within the meaning of the Investment Company Act of 1940, as amended.

(y) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock pursuant to the Exchange Act nor has the Company received any notification that the SEC is currently contemplating terminating such registration. Except as disclosed in the SEC Documents, the Company has not, in the twelve (12) months preceding the date hereof, received any notice from any Person to the effect that the Company is not in compliance with the listing or maintenance requirements of the Principal Market. Except as disclosed in the SEC Documents, the Company is in compliance with all such listing and maintenance requirements.

(z) Accountants. The Company's accountants are set forth in the SEC Documents and, to the knowledge of the Company, such accountants are an independent registered public accounting firm as required by the Securities Act.

(aa) No Market Manipulation. The Company has not, and to its knowledge no Person acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company.

(bb) Shell Company Status. The Company was previously an issuer identified in Rule 144(i)(1) and has filed with the SEC current "Form 10 information" (as defined in Rule 144(i)(3)).

(cc) Benefit Plans; Labor Matters. Each benefit and compensation plan, agreement, policy and arrangement that is maintained, administered or contributed to by the Company for current or former employees or directors of, or independent contractors with respect to, the Company has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, and the Company has complied in all material respects with all applicable statutes, orders, rules and regulations in regard to such plans, agreements, policies and arrangements. Each stock option granted under any equity incentive plan of the Company (each, a "Stock Plan") was granted with a per share exercise price no less than the market price per share of common stock on the grant date of such option in accordance with the rules of the Principal Market, and no such grant involved any "back-dating," "forward-dating" or similar practice with respect to the effective date of such grant; each such option (i) was granted in compliance in all material respects with Applicable Laws and with the applicable Stock Plan(s), (ii) was duly approved by the Board of Directors or a duly authorized committee thereof, and (iii) has been properly accounted for in the Company's financial statements and disclosed, to the extent required, in the Company's filings or submissions with the SEC, and the Principal Market. No labor problem or dispute with the employees of the Company exists or is threatened or imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its principal suppliers or contractors, that would have a Material Adverse Effect.

(dd) Regulatory. During the 12-month period immediately preceding the date hereof, except as described in the SEC Documents, the Company and each of its Subsidiaries: (A) is and at all times has been in material compliance with all applicable U.S. and foreign statutes, rules, regulations, or guidance applicable to Company and its Subsidiaries ("Applicable Laws"), except as would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect; (B) have not received any written notice of adverse finding, warning letter, untitled letter or other correspondence or notice from the U.S. Food and Drug Administration or any other federal, state, or foreign governmental authority having authority over the Company ("Governmental Authority") alleging or asserting material noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws ("Authorizations"); (C) possess all material Authorizations and such material Authorizations are valid and in full force and effect and, to the Company's knowledge, are not in violation of any term of any such material Authorizations; (D) have not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Authority or third party alleging that any product,

operation or activity is in violation of any Applicable Laws or Authorizations and have no knowledge that any such Governmental Authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) have not received written notice that any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and the Company has no knowledge that any such Governmental Authority is considering such action; and (F) have filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or material Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct in all material respects on the date filed (or were corrected or supplemented by a subsequent submission). During the 12-month period immediately preceding the date hereof, to the Company's knowledge, the studies, tests and preclinical and clinical trials conducted by or on behalf of the Company were and, if still pending, are, in all material respects, being conducted in accordance with experimental protocols, procedures and controls pursuant to accepted professional scientific standards and all Applicable Laws. The Company has not received any written notices or correspondence from any Governmental Authority requiring the termination, suspension or material modification of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company or its Subsidiaries. The Company has concluded that it uses commercially reasonable efforts to review, from time to time, the progress and results of the studies, tests and preclinical and clinical trials and, based upon (i) the information provided to the Company by the third parties conducting such studies, tests, preclinical studies and clinical trials that are described in the SEC Documents and the Company's review of such information, and (ii) the Company's actual knowledge, the Company reasonably believes that the descriptions of the results of such studies, tests, preclinical studies and clinical trials are accurate and complete in all material respects.

(ee) **No Disqualification Events.** None of the Company, any of its predecessors, any affiliated issuer, any director, executive officer, other officer of the Company participating in the offering contemplated hereby, any beneficial owner of 20% or more of the Company's outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale (each, an "**Issuer Covered Person**") is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1)(i) to (viii) under the Securities Act (a "**Disqualification Event**"), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3) under the Securities Act. The Company has exercised reasonable care to determine whether any Issuer Covered Person is subject to a Disqualification Event.

5. COVENANTS.

(a) **Filing of Current Report and Registration Statement.** The Company agrees that it shall, within the time required under the Exchange Act, file with the SEC a report on Form 8-K relating to the transactions contemplated by, and describing the material terms and conditions of, the Transaction Documents (the "**Current Report**"). The Company shall also use reasonable best efforts to file with the SEC, within twenty (20) Business Days from the date hereof, a new registration statement (the "**Registration Statement**") covering only the resale of the Purchase Shares and the Commitment Shares in accordance with the terms of the Registration Rights Agreement. The Company shall permit the Investor to review and comment upon the substantially final pre-filing draft version of the Current Report at least two (2) Business Days prior to its filing with the SEC and, with respect to information regarding the Investor or this transaction, the Company shall not file the Current Report or the Registration Statement with the SEC in a form to which the Investor reasonably objects. The Investor shall use its reasonable best efforts to comment upon the substantially final pre-filing draft version of the Current Report within one (1) Business Day from the date the Investor receives it from the Company.

(b) Blue Sky. The Company shall take all such action, if any, as is reasonably necessary in order to obtain an exemption for or to register or qualify (i) the issuance of the Commitment Shares and the sale of the Purchase Shares to the Investor under this Agreement and (ii) any subsequent resale of all Securities by the Investor, in each case, under applicable securities or "Blue Sky" laws of the states of the United States in such states as is reasonably requested by the Investor from time to time, and shall provide evidence of any such action so taken to the Investor.

(c) Listing/DTC. The Company shall promptly secure the listing of all of the Securities to be issued to the Investor hereunder on the Principal Market (subject to official notice of issuance) and upon each other national securities exchange or automated quotation system, if any, upon which the Common Stock is then listed, and shall use commercially reasonable efforts to maintain, so long as the Common Stock shall be so listed, such listing of all such Securities from time to time issuable hereunder. The Company shall use commercially reasonable efforts to maintain the listing of the Common Stock on the Principal Market and shall comply in all material respects with the Company's reporting, filing and other obligations under the bylaws or rules and regulations of the Principal Market. Neither the Company nor any of its Subsidiaries shall take any action that would reasonably be expected to result in the delisting or suspension of the Common Stock on the Principal Market. The Company shall promptly, and in no event later than the following Business Day, provide to the Investor copies of any notices it receives from the Principal Market regarding the continued eligibility of the Common Stock for listing on the Principal Market; provided, however, that the Company shall not be required to provide the Investor copies of any such notice that the Company reasonably believes constitutes material non-public information and that the Company would not be required to publicly disclose such notice in any report or statement filed with the SEC under the Exchange Act (including on Form 8-K) or the Securities Act. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 5(c). The Company shall take all commercially reasonable action necessary to ensure that its Common Stock can be transferred electronically as DWAC Shares.

(d) Prohibition of Short Sales and Hedging Transactions. The Investor agrees that beginning on the date of this Agreement and ending on the date of termination of this Agreement as provided in Section 11, the Investor and its agents, representatives and affiliates shall not in any manner whatsoever enter into or effect, directly or indirectly, any (i) "short sale" (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of the Common Stock or (ii) hedging transaction, which establishes a net short position with respect to the Common Stock.

(e) Issuance of Commitment Shares. In consideration for the Investor's execution and delivery of this Agreement, the Company shall cause the Transfer Agent to issue 142,939 shares of Common Stock (the "Commitment Shares") directly to the Investor in accordance with Section 6 hereto and the Irrevocable Transfer Agent Instructions. For the avoidance of doubt, all of the Commitment Shares shall be fully earned as of the date of this Agreement, whether or not the Commencement shall occur or any Purchase Shares are purchased by the Investor under this Agreement and irrespective of any subsequent termination of this Agreement.

(f) Due Diligence; Non-Public Information. During the term of this Agreement, the Investor shall have the right, as the Investor may reasonably deem appropriate, and upon reasonable advance notice to the Company, to perform reasonable due diligence on the Company during normal business hours and such diligence shall occur no more than once on a quarterly basis. The Company and its officers and employees shall provide information and reasonably cooperate with the Investor in connection with any reasonable request by the Investor related to the Investor's due diligence of the Company. Each party hereto agrees not to disclose any Confidential Information of the other party to any third party and shall not use the Confidential Information for any purpose other than in connection with, or in furtherance of, the

transactions contemplated hereby. Each party hereto acknowledges that the Confidential Information shall remain the property of the disclosing party and agrees that it shall take all reasonable measures to protect the secrecy of any Confidential Information disclosed by the other party. The receiving party may disclose Confidential Information to the extent such information is required to be disclosed by law, regulation or order of a court of competent jurisdiction or regulatory authority, provided that the receiving party shall promptly notify the disclosing party when such requirement to disclose arises, and shall cooperate with the disclosing party so as to enable the disclosing party to: (i) seek an appropriate protective order; and (ii) make any applicable claim of confidentiality in respect of such Confidential Information; and provided, further, that the receiving party shall disclose Confidential Information only to the extent required by the protective order or other similar order, if such an order is obtained, and, if no such order is obtained, the receiving party shall disclose only the minimum amount of such Confidential Information required to be disclosed in order to comply with the applicable law, regulation or order. In addition, any such Confidential Information disclosed pursuant to this [Section 5\(f\)](#) shall continue to be deemed Confidential Information. Notwithstanding anything in this Agreement to the contrary, the Company and the Investor agree that neither the Company nor any other Person acting on its behalf shall provide the Investor or its agents or counsel with any information that constitutes material, non-public information, unless a simultaneous public announcement thereof is made by the Company in the manner contemplated by Regulation FD under the Exchange Act. In the event of a breach of the foregoing covenant by the Company or any Person acting on its behalf (as determined in the reasonable good faith judgment of the Investor), in addition to any other remedy provided herein or in the other Transaction Documents, if the Investor is holding any Securities at the time of the disclosure of such material non-public information, the Investor shall have the right to make a public disclosure, in the form of a press release, public advertisement or otherwise, of such material, non-public information without the prior approval by the Company; provided the Investor shall have first provided notice to the Company that it believes it has received information that constitutes material, non-public information, the Company shall have at least two (2) Business Days to either publicly disclose such material, non-public information or to demonstrate to the Investor that such information does not constitute material, non-public information prior to any such disclosure by the Investor, and the Company shall have failed to publicly disclose such material, non-public information or to demonstrate to the Investor that such information does not constitute material, non-public information within such time period. The Investor shall not have any liability to the Company, or any of its directors, officers, employees, stockholders or agents, for any such disclosure, provided the Investor has provided the required prior notice to the Company in accordance with this [Section 5\(f\)](#). The Company understands and confirms that the Investor shall be relying on the foregoing covenants in effecting transactions in securities of the Company.

(g) **Purchase Records.** The Investor and the Company shall each maintain records showing the remaining Available Amount at any given time and the dates and Purchase Amounts for each Regular Purchase, Accelerated Purchase and Additional Accelerated Purchase or shall use such other method, reasonably satisfactory to the Investor and the Company.

(h) **Taxes.** The Company shall pay any and all transfer, stamp or similar taxes that may be payable with respect to the issuance and delivery of any Common Stock to the Investor made under this Agreement.

(i) **No Aggregation.** From and after the date of this Agreement, neither the Company, nor any of its affiliates will, and the Company shall use its reasonable best efforts to ensure that no Person acting on their behalf will, directly or indirectly, make any offers or sales of any security or solicit any offers to buy any security, under circumstances that would cause this offering of the Securities by the Company to the Investor to be aggregated with other offerings by the Company in a manner that would require stockholder approval pursuant to the rules of the Principal Market on which any of the securities of the Company are listed or designated unless stockholder approval is obtained before the closing of such subsequent transaction in accordance with the rules of such Principal Market.

(j) Use of Proceeds. The Company will use the net proceeds from the offering for any corporate purpose at the sole discretion of the Company.

(k) Other Transactions. During the term of this Agreement, the Company shall not enter into, announce or recommend to its stockholders any agreement, plan, arrangement or transaction in or of which the terms thereof would restrict, materially delay, conflict with or impair the ability or right of the Company to perform its obligations under the Transaction Documents, including, without limitation, the obligation of the Company to deliver the Securities to the Investor in accordance with the terms of the Transaction Documents.

(l) No Integration. From and after the date of this Agreement, neither the Company, nor or any of its affiliates will, and the Company shall use its reasonable best efforts to ensure that no Person acting on their behalf will, directly or indirectly, make any offers or sales of any security or solicit any offers to buy any security, under circumstances that would require registration of the offer and sale of any of the Securities under the Securities Act.

(m) Limitation on Variable Rate Transactions. From and after the date of this Agreement until the earlier of: (i) thirty-six (36) month anniversary of the date of this Agreement or (ii) the twelve (12) month anniversary of the termination of this Agreement, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock involving a Variable Rate Transaction other than with the Investor. "Variable Rate Transaction" means an "equity line of credit" or substantially similar transaction whereby an investor is irrevocably bound to purchase securities over a period of time from the Company at a price based on the market price of the Company's Common Stock at the time of each such purchase, provided, however, that this Section 5(m) shall not be deemed to prohibit the issuance and sale of Common Stock pursuant to an "at-the-market offering" by the Company exclusively through a registered broker-dealer acting as agent of the Company pursuant to a written agreement between the Company and such registered broker-dealer.

(n) Publicity. The Company shall afford the Investor and its counsel with the opportunity to review and comment upon, shall consult with the Investor and its counsel on the form and substance of, and shall give due consideration to all such comments from the Investor or its counsel on, disclosure that is part of any press release, SEC filing or any other public disclosure by or on behalf of the Company that identifies the Investor, describes its purchases hereunder or summarizes any aspect of the Transaction Documents or the transactions contemplated thereby, not less than twenty-four (24) hours prior to the issuance, filing or public disclosure thereof; provided that (i) the Company shall not be required to provide to the Investor any press release, SEC filing or any other public disclosure that solely discloses the number of shares sold to the Investor and the amounts paid by the Investor for such shares and (ii) the Company shall not be required to provide to the Investor any disclosures that are materially similar to those previously reviewed by the Investor. The Investor must be provided with a substantially final version of any such disclosure that relates to the Investor, at least twenty-four (24) hours prior to any release, filing or use by the Company thereof.

6. TRANSFER AGENT INSTRUCTIONS.

(a) Commitment Shares. On the date of this Agreement, the Company shall issue to the Transfer Agent (and any subsequent transfer agent) irrevocable instructions, in the form agreed to prior to the date hereof (the "Irrevocable Transfer Agent Instructions"), to issue the Commitment Shares in accordance with the terms of this Agreement. All Commitment Shares to be issued to or for the benefit of the Investor pursuant to this Agreement shall be issued as DWAC Shares. The Company warrants to the Investor that, while the Agreement is effective, no instruction other than the Irrevocable Transfer Agent Instructions referred to in this Section 6 will be given by the Company to the Transfer Agent with respect to the Commitment Shares.

Each book entry for the Commitment Shares shall contain a notation (a "Restrictive Legend") evidencing the Commitment Shares shall be stamped or otherwise imprinted with a legend, in substantially the following form:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS, UNLESS SOLD PURSUANT TO: (1) RULE 144 UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (2) AN OPINION OF HOLDER'S COUNSEL, IN A CUSTOMARY FORM, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR APPLICABLE STATE SECURITIES LAWS.

(b) Purchase Shares. On the date that the Registration Statement is declared effective, the Company shall issue to the Transfer Agent, and any subsequent transfer agent, irrevocable instructions in the form agreed to prior to the date hereof (the "Commencement Irrevocable Transfer Agent Instructions") to (i) remove each Restrictive Legend on the Commitment Shares in accordance with the terms of the Registration Rights Agreement; and (ii) issue the Purchase Shares in accordance with the terms of this Agreement and the Registration Rights Agreement. The Purchase Shares to be issued from and after Commencement to or for the benefit of the Investor pursuant to this Agreement shall be issued only as DWAC Shares. The Company represents and warrants to the Investor that, while this Agreement is effective, no instruction other than as contemplated by the Commencement Irrevocable Transfer Agent Instructions and any Notice of Effectiveness of Registration Statement (as defined in the Registration Rights Agreement) will be given by the Company to the Transfer Agent with respect to the Purchase Shares from and after Commencement, and no instruction or other communication to the Transfer Agent with respect to the issuance of the Purchase Shares shall be made without the approval of the Investor. The Company shall provide confirmation of receipt by the Transfer Agent of all instructions pursuant to the Commencement Irrevocable Transfer Agent Instructions with respect to Purchase Shares within one Business Day of delivery of any Purchase Notice. The Purchase Shares covered by the Registration Statement shall otherwise be freely transferable on the books and records of the Company.

7. CONDITIONS TO THE COMPANY'S RIGHT TO COMMENCE SALES OF SHARES OF COMMON STOCK.

The right of the Company hereunder to commence sales of the Purchase Shares on the Commencement Date is subject to the satisfaction or, where legally permissible, the waiver of each of the following conditions:

(a) The Investor shall have executed each of the Transaction Documents and delivered the same to the Company;

(b) The Registration Statement covering the resale of all of such Purchase Shares as required pursuant to the Registration Rights Agreement shall have been declared effective under the Securities Act by the SEC and no stop order with respect to the Registration Statement shall be pending or, to the Company's knowledge, threatened by the SEC;

(c) The Common Stock shall be listed on the Principal Market, and all Securities to be issued by the Company to the Investor under the Transaction Documents shall have been approved for listing on the Principal Market in accordance with the applicable rules and regulations of the Principal Market, subject only to official notice of issuance; and

(d) The representations and warranties of the Investor shall be true and correct in all material respects (except to the extent that any of such representations and warranties is already qualified as to materiality in Section 3 above, in which case, such representations and warranties shall be true and correct without further qualification) as of the date hereof and as of the Commencement Date as though made at that time.

8. CONDITIONS TO THE INVESTOR'S OBLIGATION TO PURCHASE COMMON STOCK.

The obligation of the Investor to buy Purchase Shares (other than the Commitment Shares) under this Agreement is subject to the satisfaction or, where legally permissible, the waiver of each of the following conditions on or prior to the Commencement Date and, once such conditions have been initially satisfied, there shall not be any ongoing obligation to satisfy such conditions after the Commencement has occurred:

(a) The Company shall have executed each of the Transaction Documents and delivered the same to the Investor;

(b) The Company shall have issued or caused to be issued to the Investor (i) one or more certificates or book-entry statements representing the Commitment Shares free from all restrictive and other legends or (ii) a number of shares of Common Stock equal to the number of Commitment Shares as DWAC Shares;

(c) The Common Stock shall be listed or quoted on the Principal Market, trading in the Common Stock shall not have been within the last 365 days suspended by the SEC or the Principal Market for one Business Day or more, and all Securities to be issued by the Company to the Investor pursuant to this Agreement shall have been approved for listing or quotation on the Principal Market in accordance with the applicable rules and regulations of the Principal Market, subject only to official notice of issuance;

(d) The Investor shall have received the opinion and the negative assurances letter of the Company's legal counsel dated as of the Commencement Date substantially in the form agreed to prior to the date of this Agreement by the Company's legal counsel and the Investor's legal counsel;

(e) The representations and warranties of the Company contained in this Agreement shall be true and correct in all material respects (except to the extent that any of such representations and warranties is already qualified as to materiality in Section 4 above, in which case, such representations and warranties shall be true and correct in all material respects without further qualification) as of the date when made and as of the Commencement Date as though made at that time (except for representations and warranties that speak as of a specific date, which shall be true and correct in all material respects as of such date) and the Company shall have performed, satisfied and complied with the covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Company at or prior to the Commencement Date. The Investor shall have received a certificate, executed by the Chief Executive Officer or the Chief Financial Officer of the Company, dated as of the Commencement Date, to the foregoing effect in the form attached hereto as Exhibit A.

(f) The Board of Directors of the Company shall have adopted the Signing Resolutions, which shall be in full force and effect without any amendment or supplement thereto as of the Commencement Date;

(g) As of the Commencement Date, the Company shall have reserved out of its authorized and unissued Common Stock, solely for the purpose of effecting purchases of Purchase Shares hereunder, at least 7,990,987 shares of Common Stock (excluding the Commitment Shares);

(h) The Commencement Irrevocable Transfer Agent Instructions and the Notice of Effectiveness of Registration Statement each shall have been delivered to and acknowledged in writing by the Company and the Company's Transfer Agent (or any successor transfer agent);

(i) The Company shall have delivered to the Investor a certificate evidencing the incorporation and good standing of the Company in the State of Delaware issued by the Secretary of State of the State of Delaware as of a date within ten (10) Business Days of the Commencement Date;

(j) The Company shall have delivered to the Investor a certified copy of the Certificate of Incorporation as certified by the Secretary of State of the State of Delaware within ten (10) Business Days of the Commencement Date;

(k) The Company shall have delivered to the Investor a secretary's certificate executed by the Secretary of the Company, dated as of the Commencement Date, in the form attached hereto as **Exhibit B**;

(l) The Registration Statement covering the resale of the Securities in accordance with the Registration Rights Agreement shall have been declared effective under the Securities Act by the SEC and no stop order with respect to the Registration Statement shall be pending or, to the Company's knowledge, threatened by the SEC. The Company shall have prepared and filed with the SEC, not later than two (2) Business Days after the effective date of the Registration Statement, a final prospectus (the preliminary form of which shall be included in the Registration Statement) and shall have delivered to the Investor a true and complete copy thereof. When filed, such prospectus shall be current and available for the resale by the Investor of all of the Securities covered thereby. The Current Report shall have been filed with the SEC, as required pursuant to [Section 5\(a\)](#). All reports, schedules, registrations, forms, statements, information and other documents required to have been filed by the Company with the SEC at or prior to the Commencement Date pursuant to the reporting requirements of the Exchange Act shall have been filed with the SEC within the applicable time periods prescribed for such filings under the Exchange Act;

(m) No Event of Default (as defined below) has occurred, and no event which, after notice and/or lapse of time, would reasonably be expected to become an Event of Default has occurred;

(n) The Exchange Cap has not been reached (to the extent the Exchange Cap is applicable pursuant to [Section 2\(f\)](#)).

(o) No statute, regulation, order, decree, writ, ruling or injunction shall have been enacted, entered, promulgated, threatened or endorsed by any federal, state, local or foreign court or governmental authority of competent jurisdiction which prohibits the consummation of or which would materially modify or delay any of the transactions contemplated by the Transaction Documents;

(p) No action, suit or proceeding before any federal, state, local or foreign arbitrator or any court or governmental authority of competent jurisdiction shall have been commenced or threatened, and no inquiry or investigation by any federal, state, local or foreign governmental authority of competent jurisdiction shall have been commenced or threatened, against the Company, or any of the officers, directors or affiliates of the Company, seeking to restrain, prevent or change the transactions contemplated by the Transaction Documents, or seeking material damages in connection with such transactions; and

(q) All federal, state and local governmental laws, rules and regulations applicable to the transactions contemplated by the Transaction Documents and necessary for the execution, delivery and performance of the Transaction Documents and the consummation of the transactions contemplated thereby in accordance with the terms thereof shall have been complied with, and all consents, Authorizations and orders of, and all filings and registrations with, all federal, state and local courts or governmental agencies and all federal, state and local regulatory or self-regulatory agencies necessary for the execution, delivery and performance of the Transaction Documents and the consummation of the transactions contemplated thereby in accordance with the terms thereof shall have been obtained or made, including, without limitation, in each case those required under the Securities Act, the Exchange Act, applicable state securities or "Blue Sky" laws or applicable rules and regulations of the Principal Market, or otherwise required by the SEC, the Principal Market or any state securities regulators.

9. INDEMNIFICATION.

In consideration of the Investor's execution and delivery of the Transaction Documents and acquiring the Securities hereunder and in addition to all of the Company's other obligations under the Transaction Documents, the Company shall defend, protect, indemnify and hold harmless the Investor and all of its affiliates, stockholders, officers, directors, members, managers, employees and direct or indirect investors and any of the foregoing Person's agents or other representatives (including, without limitation, those retained in connection with the transactions contemplated by this Agreement) (collectively, the "Indemnitees") from and against any and all actions, causes of action, suits, claims, losses, costs, penalties, fees, liabilities and damages, and expenses in connection therewith (irrespective of whether any such Indemnitee is a party to the action for which indemnification hereunder is sought), and including reasonable attorneys' fees and disbursements (the "Indemnified Liabilities"), incurred by any Indemnitee as a result of, or arising out of or relating to: (a) any misrepresentation or breach of any representation or warranty made by the Company in the Transaction Documents or any other certificate, instrument or document contemplated hereby or thereby, (b) any breach of any covenant, agreement or obligation of the Company contained in the Transaction Documents or any other certificate, instrument or document contemplated hereby or thereby, (c) any cause of action, suit or claim brought or made against such Indemnitee and arising out of or resulting from the execution, delivery, performance or enforcement of the Transaction Documents or any other certificate, instrument or document contemplated hereby or thereby; other than, in the case of clause (c), with respect to any Indemnified Liabilities which directly and primarily result from the fraud, gross negligence or willful misconduct of an Indemnitee. The indemnity in this Section 9 shall not apply to amounts paid in settlement of any claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld, conditioned or delayed. To the extent that the foregoing undertaking by the Company may be unenforceable for any reason, the Company shall make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities which is permissible under applicable law, provided that no seller of Securities guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any seller of Securities who was not guilty of fraudulent misrepresentation. Payment under this indemnification shall

be made within thirty (30) days from the date the Indemnitee makes written request for it. A certificate containing reasonable detail as to the amount of such indemnification submitted to the Company by the Indemnitee shall be conclusive evidence, absent manifest error, of the amount due from the Company to the Indemnitee; provided that the Indemnitee shall undertake to repay any amount paid to it hereunder if it is ultimately determined, by a final and non-appealable order of a court of competent jurisdiction, that the Indemnitee is not entitled to be indemnified against such Indemnified Liabilities by the Company pursuant to this Agreement. If any action shall be brought against any Indemnitee with respect to which indemnity may be sought pursuant to this Agreement, such Indemnitee shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Indemnitee. Any Indemnitee shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnitee, except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of such separate counsel, a material conflict on any material issue between the position of the Company and the position of such Indemnitee, in which case the Company shall be responsible for the reasonable fees and expenses of no more than one such separate counsel.

10. EVENTS OF DEFAULT.

In addition to any other rights and remedies under applicable law and this Agreement, so long as an "Event of Default" has occurred and is continuing, or if any event that, after notice and/or lapse of time, would reasonably be expected to become an Event of Default, has occurred and is continuing, the Company shall not deliver to the Investor any Purchase Notice, and the Investor shall not purchase any Common Stock under this Agreement. An "Event of Default" shall be deemed to have occurred at any time as any of the following events occurs:

(a) the effectiveness of the Registration Statement registering the Securities lapses for any reason (including, without limitation, the issuance of a stop order or similar order), the Registration Statement or any prospectus thereunder is unavailable for the sale by the Company to the Investor (or the resale by the Investor) of any or all of the Securities to be issued to the Investor under the Transaction Documents, and any such lapse or unavailability continues for a period of ten (10) consecutive Business Days or for more than an aggregate of thirty (30) Business Days in any 365-day period, but excluding a lapse or unavailability where (i) the Company terminates the Registration Statement after the Investor has confirmed in writing that all of the Securities covered thereby have been resold or (ii) the Company supersedes the Registration Statement with a New Registration Statement, including (without limitation) when the Registration Statement is effectively replaced with a New Registration Statement covering Securities (provided in the case of this clause (ii) that all of the Securities covered by the superseded (or terminated) Registration Statement that have not theretofore been sold to the Investor are included in the superseding (or new) Registration Statement)

(b) the suspension of the Common Stock from trading on the Principal Market for a period of one (1) Business Day, provided that the Company may not direct the Investor to purchase any Common Stock during any such suspension;

(c) the delisting of the Common Stock from The Nasdaq Capital Market, provided, however, that the Common Stock is not immediately thereafter trading on The Nasdaq Global Select Market, The Nasdaq Global Market, The Nasdaq Capital Market, the New York Stock Exchange, the NYSE American, the NYSE Arca, the OTC Bulletin Board, or the OTCQB or the OTCQX operated by the OTC Markets Group, Inc. (or any nationally recognized successor to any of the foregoing);

(d) the failure for any reason by the Transfer Agent to issue Purchase Shares to the Investor within two (2) Business Days after the applicable Purchase Date, Accelerated Purchase Date or Additional Accelerated Purchase Date (as applicable) on which the Investor is entitled to receive such Purchase Shares;

(e) the Company breaches any representation, warranty, covenant or other term or condition under any Transaction Document if such breach could have a Material Adverse Effect and except, in the case of a breach of a covenant which is reasonably curable, only if such breach continues for a period of at least five (5) Business Days;

(f) if any Person commences a proceeding against the Company pursuant to or within the meaning of any Bankruptcy Law;

(g) if the Company is at any time insolvent, or, pursuant to or within the meaning of any Bankruptcy Law, (i) commences a voluntary case, (ii) consents to the entry of an order for relief against it in an involuntary case, (iii) consents to the appointment of a receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law (a "Custodian") of it or for all or substantially all of its property, or (iv) makes a general assignment for the benefit of its creditors or is generally unable to pay its debts as the same become due;

(h) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that (i) is for relief against the Company in an involuntary case, (ii) appoints a Custodian of the Company or for all or substantially all of its property, or (iii) orders the liquidation of the Company;

(i) if at any time the Company is not eligible to transfer its Common Stock electronically as DWAC Shares; or

(j) if at any time after the Commencement Date, the Exchange Cap is reached (to the extent the Exchange Cap is applicable pursuant to Section 2(f) hereof) and the Company's stockholders have not approved the transactions contemplated by this Agreement in accordance with the applicable rules and regulations of the Principal Market.

11. TERMINATION

This Agreement may be terminated only as follows:

(a) If pursuant to or within the meaning of any Bankruptcy Law, the Company commences a voluntary case or any Person commences a proceeding against the Company, a Custodian is appointed for the Company or for all or substantially all of its property, or the Company makes a general assignment for the benefit of its creditors (any of which would be an Event of Default as described in Sections 10(f), 10(g), and 10(h), hereof), this Agreement shall automatically terminate without any liability or payment to the Company (except as set forth below) without further action or notice by any Person.

(b) In the event that the Commencement shall not have occurred on or before April 30, 2022, due to the failure to satisfy the conditions set forth in Sections 7 and 8 above with respect to the Commencement, either the Company or the Investor shall have the option to terminate this Agreement at the close of business on such date or thereafter without liability of any party to any other party (except as set forth below); provided, however, that the right to terminate this Agreement under this Section 11(b) shall not be available to any party if such party is then in breach of any covenant or agreement contained in this Agreement or any representation or warranty of such party contained in this Agreement fails to be true and correct such that the conditions set forth in Section 7(d) or Section 8(c), as applicable, could not then be satisfied.

(c) At any time after the Commencement Date, the Company shall have the option to terminate this Agreement for any reason or for no reason by delivering notice (a "Company Termination Notice") to the Investor electing to terminate this Agreement without any liability whatsoever of any party to any other party under this Agreement (except as set forth below). The Company Termination Notice shall be effective one (1) Business Day after it has been received by the Investor.

(d) This Agreement shall automatically terminate on the date that the Company sells and the Investor purchases the full Available Amount as provided herein, without any action or notice on the part of any party and without any liability whatsoever of any party to any other party under this Agreement (except as set forth below).

(e) If, for any reason or for no reason, the full Available Amount has not been purchased in accordance with Section 2 of this Agreement by the Maturity Date, this Agreement shall automatically terminate on the Maturity Date, without any action or notice on the part of any party and without any liability whatsoever of any party to any other party under this Agreement (except as set forth below).

Except as set forth in Sections 11(a) (in respect of an Event of Default under Sections 10(f), 10(g) and 10(h), 11(d) and 11(e)), any termination of this Agreement pursuant to this Section 11 shall be effected by written notice from the Company to the Investor, or the Investor to the Company, as the case may be, setting forth the basis for the termination hereof. The representations and warranties of the Company and the Investor contained in Sections 3 and 4 hereof, the indemnification provisions set forth in Section 9 hereof and the agreements and covenants set forth in Sections 5, 6, 10, 11 and 12 shall survive the Commencement and any termination of this Agreement. No termination of this Agreement shall affect the Company's or the Investor's rights or obligations under (A) this Agreement with respect to any pending Initial Purchase, Regular Purchases, Accelerated Purchases, or Additional Purchases, and the Company and the Investor shall complete their respective obligations with respect to any pending Initial Purchase, Regular Purchases, Accelerated Purchases and Additional Purchases under this Agreement and (B) the Registration Rights Agreement, which shall survive any such termination, or (ii) be deemed to release the Company or the Investor from any liability for intentional misrepresentation or willful breach of any of the Transaction Documents.

12. MISCELLANEOUS.

(a) Governing Law; Jurisdiction; Jury Trial. The corporate laws of the State of Delaware shall govern all issues concerning the relative rights of the Company and its stockholders. All other questions concerning the construction, validity, enforcement and interpretation of this Agreement and the other Transaction Documents shall be governed by the internal laws of the State of Illinois, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Illinois or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Illinois. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the State of Illinois, County of Cook, for the adjudication of any dispute hereunder or under the other Transaction Documents or in connection herewith or therewith, or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address for such

notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. **EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION HEREWITH OR ARISING OUT OF THIS AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

(b) Counterparts. This Agreement may be executed in two or more identical counterparts, all of which shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party; provided that a facsimile signature or signature delivered by e-mail in a ".pdf" format data file shall be considered due execution and shall be binding upon the signatory thereto with the same force and effect as if the signature were an original signature.

(c) Headings. The headings of this Agreement are for convenience of reference and shall not form part of, or affect the interpretation of, this Agreement.

(d) Severability. If any provision of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement in that jurisdiction or the validity or enforceability of any provision of this Agreement in any other jurisdiction.

(e) Entire Agreement. The Transaction Documents supersede all other prior oral or written agreements between the Investor, the Company, their affiliates and Persons acting on their behalf with respect to the subject matter thereof, and this Agreement, the other Transaction Documents and the instruments referenced herein contain the entire understanding of the parties with respect to the matters covered herein and therein and, except as specifically set forth herein or therein, neither the Company nor the Investor makes any representation, warranty, covenant or undertaking with respect to such matters. The Company acknowledges and agrees that it has not relied on, in any manner whatsoever, any representations or statements, written or oral, other than as expressly set forth in the Transaction Documents. The Investor acknowledges and agrees that it has not relied on, in any manner whatsoever, any representations or statements, written or oral, other than as expressly set forth in the Transaction Documents. No provision of this Agreement may be amended other than by a written instrument signed by both parties hereto.

(f) Notices. Any notices, consents, waivers, or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (i) upon receipt when delivered personally; (ii) upon receipt when sent by facsimile or email (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party); or (iii) one (1) Business Day after deposit with a nationally recognized overnight delivery service, in each case properly addressed to the party to receive the same. The addresses for such communications shall be:

If to the Company:

eFFECTOR Therapeutics, Inc.
142 North Cedros Avenue, Suite B
Solana Beach, CA 92075
Telephone:
E-mail:
Attention: Michael Byrnes, CFO

With a copy to (which shall not constitute notice or service of process):

Latham & Watkins LLP
12670 High Bluff Drive San Diego, CA 92130
Telephone:
E-mail:
Attention: Matthew Bush

If to the Investor:

Lincoln Park Capital Fund, LLC
440 North Wells, Suite 410
Chicago, IL 60654
Telephone: 312.822.9300
Facsimile: 312.822.9301
E-mail:
Attention: Josh Scheinfeld/Jonathan Cope

With a copy to (which shall not constitute notice or service of process):

K&L Gates, LLP
200 S. Biscayne Blvd., Ste. 3900
Miami, Florida 33131
Telephone: 305.539.3306
Facsimile: 305.358.7095
E-mail:
Attention: Clayton E. Parker, Esq.

If to the Transfer Agent:

Continental Stock Transfer & Trust Company
1 State Street, 30th Floor
New York, New York 10004
E-mail:
Attention: Stacy Aqui

or at such other address, e-mail and/or facsimile number and/or to the attention of such other Person as the recipient party has specified by written notice given to each other party three (3) Business Days prior to the effectiveness of such change. Written confirmation of receipt (A) given by the recipient of such notice, consent or other communication, (B) mechanically or electronically generated by the sender's facsimile machine or e-mail account containing the time, date, and recipient facsimile number or e-mail address, as applicable, and an image of the first page of such transmission or (C) provided by a nationally recognized overnight delivery service, shall be rebuttable evidence of personal service, receipt by facsimile or email or receipt from a nationally recognized overnight delivery service in accordance with clause (i), (ii) or (iii) above, respectively.

(g) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns. The Company shall not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Investor, including by merger or consolidation. The Investor may not assign its rights or obligations under this Agreement.

(h) No Third Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns, and, except as set forth in Section 9, is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

(i) Further Assurances. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to consummate and make effective, as soon as reasonably possible, the Commencement, and to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

(j) No Strict Construction. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

(k) Remedies, Other Obligations, Breaches and Injunctive Relief. The Investor's remedies provided in this Agreement, including, without limitation, the Investor's remedies provided in Section 9, shall be cumulative and in addition to all other remedies available to the Investor under this Agreement, at law or in equity (including a decree of specific performance and/or other injunctive relief), no remedy of the Investor contained herein shall be deemed a waiver of compliance with the provisions giving rise to such remedy and nothing herein shall limit the Investor's right to pursue actual damages for any failure by the Company to comply with the terms of this Agreement. The parties acknowledge that a breach by any party of its obligations hereunder will cause irreparable harm to the non-breaching party and that the remedy at law for any such breach may be inadequate. The parties therefore agree that, in the event of any such breach or threatened breach, the non-breaching party shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

(l) Enforcement Costs. If: (i) this Agreement is placed by the Investor or the Company in the hands of an attorney for enforcement or is enforced by the Investor or the Company through any legal proceeding; (ii) an attorney is retained to represent the Investor in any bankruptcy, reorganization, receivership or other proceedings affecting creditors' rights and involving a claim under this Agreement; or (iii) an attorney is retained to represent the Investor or the Company in any other proceedings whatsoever in connection with this Agreement, then the party against which redress is sought under this Section 12(l) shall pay, all reasonable costs and expenses including attorneys' fees incurred in connection therewith to the party incurring such costs and expenses, as incurred, in addition to all other amounts due hereunder.

(m) Amendment and Waiver; Failure or Indulgence Not Waiver. No provision of this Agreement may be amended other than by a written instrument signed by both parties hereto and no provision of this Agreement may be waived other than in a written instrument signed by the party against whom enforcement of such waiver is sought. No failure or delay in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

*** Signature Page Follows ***

IN WITNESS WHEREOF, the Investor and the Company have caused this Purchase Agreement to be duly executed as of the date first written above.

THE COMPANY:

EFFECTOR THERAPEUTICS, INC.

By: /s/ Michael Byrnes

Name: Michael Byrnes

Title: Chief Financial Officer

INVESTOR:

LINCOLN PARK CAPITAL FUND, LLC

BY: LINCOLN PARK CAPITAL, LLC

BY:

By: /s/ Jonathan Cope

Name: Jonathan Cope

Title: President

SCHEDULES

Schedule 4(c) Capitalization

1,000,000,000 shares of Common Stock, par value of \$0.0001 per share.

100,000,000 shares of Preferred Stock, par value of \$0.0001 per share.

EXHIBITS

Exhibit A - Form of Officer's Certificate

Exhibit B - Form of Secretary's Certificate

EXHIBIT A

FORM OF OFFICER'S CERTIFICATE

This Officer's Certificate ("Certificate") is being delivered pursuant to Section 8(e) of that certain Purchase Agreement dated as of January 24, 2022, ("Purchase Agreement"), by and between **EFFECTOR THERAPEUTICS, INC.**, a Delaware Corporation (the "Company"), and **LINCOLN PARK CAPITAL FUND, LLC**, an Illinois limited liability company (the "Investor"). Terms used herein and not otherwise defined shall have the meanings ascribed to them in the Purchase Agreement.

The undersigned, _____, _____ of the Company, hereby certifies, on behalf of the Company and not in [his/her] individual capacity, as follows:

1. I am the _____ of the Company and make the statements contained in this Certificate;
2. The representations and warranties of the Company are true and correct in all material respects (except to the extent that any of such representations and warranties is already qualified as to materiality in Section 4 of the Purchase Agreement, in which case, such representations and warranties are true and correct without further qualification) as of the date when made and as of the Commencement Date as though made at that time (except for representations and warranties that speak as of a specific date, in which case such representations and warranties are true and correct in all material respects as of such date);
3. The Company has performed, satisfied and complied in all material respects with covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Company at or prior to the Commencement Date, to the extent not otherwise waived.
4. The Company has not taken any steps, and does not currently expect to take any steps, to seek protection pursuant to any Bankruptcy Law nor does the Company or any of its Subsidiaries currently have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy or insolvency proceedings. The Company is currently financially solvent and is generally able to pay its debts as they become due.

IN WITNESS WHEREOF, I have hereunder signed my name on this ___ day of _____.

Name:

Title:

The undersigned as Secretary of **EFFECTOR THERAPEUTICS, INC.**, a Delaware Corporation, hereby certifies that _____ is the duly elected, appointed, qualified and acting _____ of _____ and that the signature appearing above is his genuine signature.

Secretary

EXHIBIT B

FORM OF SECRETARY'S CERTIFICATE

This Secretary's Certificate (the "Certificate") is being delivered pursuant to Section 8(k) of that certain Purchase Agreement dated as of January 24, 2022 ("Purchase Agreement"), by and between **EFFECTOR THERAPEUTICS, INC.**, a Delaware Corporation (the "Company,"), and **LINCOLN PARK CAPITAL FUND, LLC**, an Illinois limited liability company (the "Investor"), pursuant to which the Company may sell to the Investor up to Fifty Million Dollars (\$50,000,000) of the Company's Common Stock, par value \$0.0001 per share (the "Common Stock"). Terms used herein and not otherwise defined shall have the meanings ascribed to them in the Purchase Agreement.

The undersigned, _____, Secretary of the Company, hereby certifies, on behalf of the Company and not in [his/her] individual capacity, as follows:

1. I am the Secretary of the Company and make the statements contained in this Secretary's Certificate.
2. Attached hereto as Exhibit A and Exhibit B are true, correct and complete copies of the Company's Bylaws ("Bylaws") and Certificate of Incorporation ("Charter"), in each case, as amended through the date hereof, and no action has been taken by the Company, its directors, officers or stockholders, in contemplation of the filing of any further amendment relating to or affecting the Bylaws or Charter.
3. Attached hereto as Exhibit C are true, correct and complete copies of the resolutions duly adopted by the Board of Directors of the Company on _____, at which a quorum was present and acting throughout. Such resolutions have not been amended, modified or rescinded and remain in full force and effect and such resolutions are the only resolutions adopted by the Company's Board of Directors, or any committee thereof, or the stockholders of the Company relating to or affecting (i) the entering into and performance of the Purchase Agreement, or the issuance, offering and sale of the Securities and (ii) the performance of the Company of its obligation under the Transaction Documents as contemplated therein.
4. As of the date hereof, the authorized, issued and reserved capital stock of the Company is as set forth on Exhibit D hereto.

IN WITNESS WHEREOF, I have hereunder signed my name on this ___ day of _____.

Secretary

The undersigned, as _____ of **EFFECTOR THERAPEUTICS, INC.**, a Delaware Corporation, hereby certifies that _____ is the duly elected, appointed, qualified and acting Secretary of **EFFECTOR THERAPEUTICS, INC.**, and that the signature appearing above is his genuine signature.

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT (this "Agreement"), dated as of January 24, 2022, is made by and between **EFFECTOR THERAPEUTICS, INC.**, a Delaware corporation (the "Company"), and **LINCOLN PARK CAPITAL FUND, LLC**, an Illinois limited liability company (together with its permitted assigns, the "Buyer"). Capitalized terms used herein and not otherwise defined herein shall have the respective meanings set forth in the Purchase Agreement by and between the parties hereto, dated as of the date hereof (as amended, restated, supplemented or otherwise modified from time to time, the "Purchase Agreement").

WHEREAS:

Upon the terms and subject to the conditions of the Purchase Agreement, (i) the Company has agreed to sell and issue to the Buyer up to Fifty Million Dollars (\$50,000,000) of the Company's common stock, par value \$0.0001 per share (the "Common Stock"), pursuant to the Purchase Agreement (the "Purchase Shares") and (ii) the Company has agreed to issue to the Investor such number of shares of Common Stock as is required pursuant to the Purchase Agreement (the "Commitment Shares"). To induce the Buyer to enter into the Purchase Agreement, the Company has agreed to provide certain registration rights under the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the "Securities Act"), and applicable state securities laws.

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Buyer hereby agree as follows:

1. DEFINITIONS.

As used in this Agreement, the following terms shall have the following meanings:

a. "Investor" means the Buyer, any transferee or assignee thereof to whom the Buyer assigns its rights under this Agreement in accordance with Section 9 and who agrees to become bound by the provisions of this Agreement, and any transferee or assignee thereof to whom a transferee or assignee assigns its rights under this Agreement in accordance with Section 9 and who agrees to become bound by the provisions of this Agreement.

b. "Person" means any individual or entity including but not limited to any corporation, a limited liability company, an exempted company, an association, a partnership, an exempted limited partnership, an organization, a business, an individual, a governmental or political subdivision thereof or a governmental agency.

c. "Register," "registered," and "registration" refer to a registration effected by preparing and filing one or more registration statements of the Company in compliance with the Securities Act and pursuant to Rule 415 under the Securities Act or any successor rule providing for offering securities on a continuous basis ("Rule 415"), and the declaration or ordering of effectiveness of such registration statement(s) by the United States Securities and Exchange Commission (the "SEC").

d. "Registrable Securities" means all of the Commitment Shares and the Purchase Shares that may, from time to time, be issued or become issuable to the Investor under the Purchase Agreement (without regard to any limitation or restriction on purchases) (including the Initial Purchase Shares), and any and all shares of Common Stock issued or issuable with respect to the Purchase Shares, the Commitment Shares or the Purchase Agreement as a result of any stock split, stock dividend, recapitalization, exchange or similar event or otherwise, without regard to any limitation on purchases under the Purchase Agreement.

e. "Registration Statement" means one or more registration statements of the Company covering only the resale of the Registrable Securities.

2. REGISTRATION.

a. Mandatory Registration. The Company shall use commercially reasonable efforts to file with the SEC, by March 31, 2022, an initial Registration Statement covering 8,133,926 of Registrable Securities, consisting of 7,990,987 Purchase Shares and 142,939 Commitment Shares, or such amount as otherwise shall be permitted to be included thereon in accordance with applicable SEC rules, regulations and interpretations so as to permit the resale of such Registrable Securities by the Investor under Rule 415 under the Securities Act at then prevailing market prices (and not fixed prices), as mutually determined by both the Company and the Investor in consultation with their respective legal counsel, subject to the aggregate number of authorized Common Stock of the Company then available for issuance in its accordance with its Certificate of Incorporation. The initial Registration Statement shall register only the Registrable Securities. The Investor and its counsel shall have a reasonable opportunity to review and comment upon such Registration Statement and any amendment or supplement to such Registration Statement and any related prospectus prior to its filing with the SEC, and the Company shall give due consideration to all comments. The Investor acknowledges that it will be identified in the initial Registration Statement as an underwriter within the meaning of Section 2(a)(11) of the Securities Act and shall furnish all information reasonably requested by the Company for inclusion therein. The Company shall use its commercially reasonable efforts to have the Registration Statement and any amendment declared effective by the SEC at the earliest practicable date. The Company shall use commercially reasonable efforts to keep the Registration Statement effective pursuant to Rule 415 promulgated under the Securities Act and available for the resale by the Investor of all of the Registrable Securities covered thereby at all times until the earlier of (i) the date as of which the Investor may sell all of the Registrable Securities without restriction pursuant to Rule 144 promulgated under the Securities Act; (ii) the date on which the Investor shall have sold all the Registrable Securities covered thereby and no Available Amount remains under the Purchase Agreement; (iii) 180 days after the termination of the Purchase Agreement; and (iv) one year after the date on which no Available Amount remains under the Purchase Agreement (the "Registration Period"). The Registration Statement (including any amendments or supplements thereto and prospectuses contained therein) shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein, or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading.

b. Rule 424 Prospectus. The Company shall, as required by applicable securities regulations, from time to time file with the SEC, pursuant to Rule 424 promulgated under the Securities Act, the prospectus and prospectus supplements, if any, to be used in connection with resales of the Registrable Securities by the Buyer under the Registration Statement. The Investor and its counsel shall have a reasonable opportunity to review and comment upon such prospectus prior to its filing with the SEC, and the Company shall give due consideration to all comments. The Investor shall use its commercially reasonable efforts to provide any such comments within one (1) Business Day from the date the Investor receives the final pre-filing version of such prospectus.

c. Sufficient Number of Shares Registered. In the event the number of shares available under the Registration Statement is insufficient to cover all of the Registrable Securities, the Company shall amend the Registration Statement or file a new registration statement (a "New Registration Statement"), so as to cover all of such Registrable Securities (subject to the limitations set forth in Section 2(a)) as soon as reasonably practicable, but in any event not later than ten (10) Business Days after the

necessity arises, subject to any limits that may be imposed by the SEC pursuant to Rule 415 under the Securities Act. The Company shall use its commercially reasonable efforts to cause such amendment and/or New Registration Statement to become effective as soon as reasonably practicable following the filing thereof.

d. Offering. If the staff of the SEC (the "Staff") or the SEC seeks to characterize any offering pursuant to a Registration Statement filed pursuant to this Agreement as constituting an offering of securities that does not permit such Registration Statement to become effective and be used for resales by the Investor under Rule 415 at then-prevailing market prices (and not fixed prices), or if after the filing of the initial Registration Statement with the SEC pursuant to Section 2(a), the Company is otherwise required by the Staff or the SEC to reduce the number of Registrable Securities included in such initial Registration Statement, then the Company shall reduce the number of Registrable Securities to be included in such initial Registration Statement (with the prior consent, which shall not be unreasonably withheld, delayed or conditioned, of the Investor and its legal counsel as to the specific Registrable Securities to be removed therefrom) until such time as the Staff and the SEC shall so permit such Registration Statement to become effective and be used as aforesaid. In the event of any reduction in Registrable Securities pursuant to this paragraph, the Company shall file one or more New Registration Statements in accordance with Section 2(c) until such time as all Registrable Securities have been included in Registration Statements that have been declared effective and the prospectus contained therein is available for use by the Investor. Notwithstanding any provision herein or in the Purchase Agreement to the contrary, the Company's obligations to register Registrable Securities (and any related conditions to the Investor's obligations) shall be qualified as necessary to comport with any requirement of the SEC or the Staff as addressed in this Section 2(d).

3. RELATED OBLIGATIONS.

With respect to the Registration Statement and whenever any Registrable Securities are to be registered pursuant to Section 2, including on any New Registration Statement, the Company shall use its commercially reasonable efforts to effect the registration of the Registrable Securities in accordance with the intended method of disposition thereof and, pursuant thereto, the Company shall have the following obligations:

a. The Company shall prepare and file with the SEC such amendments (including post-effective amendments) and supplements to any Registration Statement and the prospectus used in connection with such Registration Statement, which prospectus is to be filed pursuant to Rule 424 promulgated under the Securities Act, as may be necessary to keep the Registration Statement or any New Registration Statement effective at all times during the Registration Period, and, during such period, comply with the provisions of the Securities Act with respect to the disposition of all Registrable Securities of the Company covered by the Registration Statement or any New Registration Statement until such time as all of such Registrable Securities shall have been disposed of in accordance with the intended methods of disposition by the Investor as set forth in such Registration Statement.

b. The Company shall permit the Investor to review and comment upon the Registration Statement or any New Registration Statement and all amendments and supplements thereto at least two (2) Business Days prior to their filing with the SEC, and not file any such document in a form to which Investor reasonably objects. The Investor shall use its commercially reasonable efforts to comment upon the Registration Statement or any New Registration Statement and any amendments or supplements thereto within two (2) Business Days from the date the Investor receives the substantially final version thereof. The Company shall furnish to the Investor, without charge any correspondence from the SEC or the staff of the SEC to the Company or its representatives relating to the Registration Statement or any New Registration Statement.

c. Upon request of the Investor, the Company shall furnish to the Investor, (i) promptly after the same is prepared and filed with the SEC, at least one copy of such Registration Statement and any amendment(s) thereto, including financial statements and schedules, all documents incorporated therein by reference and all exhibits, (ii) upon the effectiveness of any Registration Statement, a copy of the prospectus included in such Registration Statement and all amendments and supplements thereto (or such other number of copies as the Investor may reasonably request) and (iii) such other documents, including copies of any preliminary or final prospectus, as the Investor may reasonably request from time to time in order to facilitate the disposition of the Registrable Securities owned by the Investor. For the avoidance of doubt, any filing available to the Investor via the SEC's live EDGAR system shall be deemed "furnished to the Investor" hereunder.

d. The Company shall use commercially reasonable efforts to (i) register and qualify the Registrable Securities covered by a Registration Statement under such other securities or "blue sky" laws of such jurisdictions in the United States as the Investor reasonably requests, (ii) prepare and file in those jurisdictions, such amendments (including post-effective amendments) and supplements to such registrations and qualifications as may be necessary to maintain the effectiveness thereof during the Registration Period, (iii) take such other actions as may be reasonably necessary to maintain such registrations and qualifications in effect at all times during the Registration Period, and (iv) take all other actions reasonably necessary or advisable to qualify the Registrable Securities for sale in such jurisdictions; provided, however, that the Company shall not be required in connection therewith or as a condition thereto to (x) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(d), (y) subject itself to general taxation in any such jurisdiction, or (z) file a general consent to service of process in any such jurisdiction. The Company shall promptly notify the Investor who holds Registrable Securities of the receipt by the Company of any notification with respect to the suspension of the registration or qualification of any of the Registrable Securities for sale under the securities or "blue sky" laws of any jurisdiction in the United States or its receipt of actual notice of the initiation or threatening of any proceeding for such purpose.

e. As promptly as practicable after becoming aware of such event or facts, the Company shall notify the Investor of the happening of any event or existence of such facts as a result of which the prospectus included in any Registration Statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading (provided that in no event shall such notice contain any material, non-public information regarding the Company), and promptly prepare a supplement or amendment to such Registration Statement to correct such untrue statement or omission, and deliver a copy of such supplement or amendment to the Investor (or such other number of copies as the Investor may reasonably request). The Company shall also promptly notify the Investor in writing (i) when a prospectus or any prospectus supplement or post-effective amendment has been filed, and when a Registration Statement or any post-effective amendment has become effective (notification of such effectiveness shall be delivered to the Investor by email or facsimile on the same day of such effectiveness or by overnight mail), (ii) of any request by the SEC for amendments or supplements to any Registration Statement or related prospectus or related information, and (iii) of the Company's reasonable determination that a post-effective amendment to a Registration Statement would be appropriate.

f. The Company shall use its commercially reasonable efforts to prevent the issuance of any stop order or other suspension of effectiveness of any Registration Statement, or the suspension of the qualification of any Registrable Securities for sale in any jurisdiction and, if such an order or suspension is issued, to obtain the withdrawal of such order or suspension at the earliest possible moment and to notify the Investor of the issuance of such order and the resolution thereof or its receipt of actual notice of the initiation or threat of any proceeding for such purpose.

g. The Company shall (i) cause all the Registrable Securities to be listed on each securities exchange on which securities of the same class or series issued by the Company are then listed, if any, if the listing of such Registrable Securities is then permitted under the rules of such exchange, or (ii) secure designation and quotation of all the Registrable Securities on the Principal Market.

h. The Company shall comply with Section 6(b) of the Purchase Agreement with respect to the issuance of Registrable Securities.

i. The Company shall at all times provide a transfer agent and registrar with respect to its Common Stock.

j. If reasonably requested by the Investor, the Company shall (i) as soon as practicable after receipt of written notice from the Investor, incorporate in a prospectus supplement or post-effective amendment such information as the Investor requests should be included therein relating to the sale and distribution of Registrable Securities, including, without limitation, information with respect to the number of Registrable Securities being sold, the purchase price being paid therefor and any other terms of the offering of the Registrable Securities; (ii) make all required filings of such prospectus supplement or post-effective amendment as soon as practicable upon notification of the matters to be incorporated in such prospectus supplement or post-effective amendment; and (iii) supplement or make amendments to any Registration Statement.

k. The Company shall use its commercially reasonable efforts to cause the Registrable Securities covered by any Registration Statement to be registered with or approved by such other governmental agencies or authorities as may be necessary to consummate the disposition of such Registrable Securities.

l. On or before the date the Registration Statement is declared effective by the SEC, the Company shall issue to the Transfer Agent the Commencement Irrevocable Transfer Agent Instructions in the form attached hereto as Exhibit A, and on the date any Registration Statement which includes the Registrable Securities is declared effective by the SEC, the Company shall deliver, and shall cause its legal counsel for the Company to deliver, to the Transfer Agent for such Registrable Securities (with copies to the Investor) confirmation that such Registration Statement has been declared effective by the SEC substantially in the form attached as an exhibit to the Commencement Irrevocable Transfer Agent Instructions. Thereafter, if reasonably requested by the Buyer at any time, the Company (acting directly or through its counsel) shall deliver to the Buyer, which may be via e-mail, a written confirmation whether or not the effectiveness of such Registration Statement has lapsed at any time for any reason (including, without limitation, the issuance of a stop order by the SEC) and whether or not the Registration Statement is current and available to the Buyer for sale of all of the Registrable Securities.

m. Company agrees to take all other reasonable actions as necessary and reasonably requested in writing by the Investor to expedite and facilitate disposition by the Investor of the Registrable Securities pursuant to any Registration Statement.

4. OBLIGATIONS OF THE INVESTOR.

a. The Company shall notify the Investor in writing of the information the Company reasonably requires from the Investor in connection with any Registration Statement hereunder. The Investor shall as soon as practicable furnish to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it as shall be reasonably required to effect the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request. The Company shall notify the Investor of any other information the Company reasonably requires from the Investor in connection with any Registration Statement hereunder. The Investor will as promptly as practicable notify the Company of any material change in the information provided to the Company pursuant to this Section 4(a), other than changes in its ownership of Common Stock.

b. The Investor agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of any Registration Statement hereunder and any amendments and supplements thereto.

c. The Investor agrees that, upon receipt of any notice from the Company of the happening of any event or existence of facts of the kind described in Section 3(f) or the first sentence of 3(e), the Investor will immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement(s) covering such Registrable Securities until the Investor's receipt of the copies of a notice regarding the resolution or withdrawal of the stop order or suspension as contemplated by Section 3(f) or the supplemented or amended prospectus as contemplated by the first sentence of 3(e). Notwithstanding anything to the contrary, the Company shall cause its transfer agent to promptly deliver shares of Common Stock without any restrictive legend in accordance with the terms of the Purchase Agreement in connection with any sale of Registrable Securities with respect to which an Investor has entered into a contract for sale prior to the Investor's receipt of a notice from the Company to the Investor of the happening of any event of the kind described in Section 3(f) or the first sentence of Section 3(e), and for which the Investor has not yet settled.

5. EXPENSES OF REGISTRATION.

All reasonable expenses of the Company, other than sales or brokerage commissions, incurred in connection with registrations, filings or qualifications pursuant to Sections 2 and 3, including, without limitation, all registration, listing and qualifications fees, printers and accounting fees, and fees and disbursements of counsel for the Company, shall be paid by the Company.

6. INDEMNIFICATION.

a. To the fullest extent permitted by law, the Company will, and hereby does, indemnify, hold harmless and defend the Investor, each Person, if any, who controls the Investor, the members, directors, officers, partners, employees, agents, managers, and representatives of the Investor and each Person, if any, who controls the Investor within the meaning of the Securities Act or the Securities Exchange Act of 1934, as amended (the "Exchange Act") (each, an "Indemnified Person"), against any losses, claims, damages, liabilities, judgments, fines, penalties, charges, costs, reasonable attorneys' fees, amounts paid in settlement (with the consent of the Company, such consent not to be unreasonably withheld) or reasonable expenses, joint or several, (collectively, "Claims") reasonably incurred in investigating, preparing or defending any action, claim, suit, inquiry, proceeding, investigation or appeal taken from the foregoing by or before any court or governmental, administrative or other regulatory agency, body or the SEC, whether pending or threatened, whether or not an indemnified party is or may be a party thereto ("Indemnified Damages"), to which any of them may become subject insofar as such Claims (or

actions or proceedings, whether commenced or threatened, in respect thereof) arise out of or are based upon: (i) any untrue statement or alleged untrue statement of a material fact in the Registration Statement, any New Registration Statement or any post-effective amendment thereto or in any filing made in connection with the qualification of the offering under the securities or other "blue sky" laws of any jurisdiction in which Registrable Securities are offered, or the omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) any untrue statement or alleged untrue statement of a material fact contained in the final prospectus (as amended or supplemented, if the Company files any amendment thereof or supplement thereto with the SEC) or the omission or alleged omission to state therein any material fact necessary to make the statements made therein, in light of the circumstances under which the statements therein were made, not misleading, (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any other law, including, without limitation, any state securities law, or any rule or regulation thereunder relating to the offer or sale of the Registrable Securities pursuant to the Registration Statement or any New Registration Statement or (iv) any material violation by the Company of this Agreement (the matters in the foregoing clauses (i) through (iv) being, collectively, "Violations"). The Company shall reimburse each Indemnified Person promptly as such expenses are incurred and are due and payable, for any reasonable and documented legal fees or other reasonable expenses incurred by them in connection with investigating or defending any such Claim. Notwithstanding anything to the contrary contained herein, the indemnification agreement contained in this [Section 6\(a\)](#): (i) shall not apply to a Claim by an Indemnified Person arising out of or based upon a Violation which occurs in reliance upon and in conformity with information about the Investor furnished in writing to the Company by such Indemnified Person expressly for use in connection with the preparation of the Registration Statement, any New Registration Statement or any such amendment thereof or supplement thereto or prospectus contained therein, if such Registration Statement, New Registration Statement or amendment thereof or supplement thereto or prospectus was timely made available by the Company pursuant to [Section 3\(c\)](#) or [Section 3\(e\)](#); (ii) with respect to any superseded prospectus, shall not inure to the benefit of any Indemnified Person from whom the Indemnified Person asserting any such Claim purchased the Registrable Securities that are the subject thereof (or to the benefit of any person controlling such Indemnified Person) if the untrue statement or omission of material fact contained in the superseded prospectus was corrected in the revised prospectus, as then amended or supplemented, if such revised prospectus was timely made available by the Company pursuant to [Section 3\(c\)](#) or [Section 3\(e\)](#), and the Indemnified Person was promptly advised in writing not to use the incorrect prospectus prior to the use giving rise to a violation and such Indemnified Person, notwithstanding such advice, used it; (iii) shall not be available to the extent such Claim is based on a failure of the Investor to deliver or to cause to be delivered the prospectus made available by the Company, if such prospectus was timely made available by the Company pursuant to [Section 3\(c\)](#) or [Section 3\(e\)](#); and (iv) shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld, delayed or conditioned. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of the Indemnified Person and shall survive the transfer Registrable Securities by the Investor pursuant to [Section 9](#).

b. In connection with the Registration Statement or any New Registration Statement or prospectus, the Investor agrees to indemnify, hold harmless and defend, to the same extent and in the same manner as is set forth in [Section 6\(a\)](#), the Company, each of its directors, each of its officers who signs the Registration Statement or any New Registration Statement, each Person, if any, who controls the Company within the meaning of the Securities Act or the Exchange Act (collectively and together with an Indemnified Person, an "Indemnified Party"), against any Claim or Indemnified Damages to which any of them may become subject, under the Securities Act, the Exchange Act or otherwise, insofar as such Claim or Indemnified Damages arise out of or are based upon any Violation, in each case to the extent, and only to the extent, that such Violation occurs in reliance upon and in conformity with written information about the Investor set forth on [Exhibit B](#) attached hereto and furnished to the Company by the Investor expressly for use in connection with such Registration Statement (as such information about the Investor may be

updated and furnished to the Company by the Investor expressly for use in connection with any New Registration Statement or prospectus) or from the failure of the Investor to deliver or to cause to be delivered the prospectus made available by the Company, if such prospectus was timely made available by the Company pursuant to Section 3(c) or Section 3(e); and, subject to Section 6(d), the Investor will reimburse any legal or other expenses reasonably incurred by any Indemnified Party in connection with investigating or defending any such Claim; provided, however, that the indemnity agreement contained in this Section 6(b) and the agreement with respect to contribution contained in Section 7 shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of the Investor, which consent shall not be unreasonably withheld, delayed or conditioned; provided, further, however, that the Investor shall be liable under this Section 6(b) for only that amount of a Claim or Indemnified Damages as does not exceed the net proceeds to the Investor as a result of the sale of Registrable Securities pursuant to such Registration Statement. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such Indemnified Party and shall survive the transfer of the Registrable Securities by the Investor pursuant to Section 9.

c. Promptly after receipt by an Indemnified Person or Indemnified Party under this Section 6 of notice of the commencement of any action or proceeding (including any governmental action or proceeding) involving a Claim, such Indemnified Person or Indemnified Party shall, if a Claim in respect thereof is to be made against any indemnifying party under this Section 6, deliver to the indemnifying party a written notice of the commencement thereof, and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume control of the defense thereof with counsel mutually satisfactory to the indemnifying party and the Indemnified Person or the Indemnified Party, as the case may be; provided, however, that an Indemnified Person or Indemnified Party shall have the right to retain its own counsel with the reasonable fees and expenses to be paid by the indemnifying party, if, in the reasonable opinion of counsel retained by the indemnifying party, the representation by such counsel of the Indemnified Person or Indemnified Party and the indemnifying party would be inappropriate due to actual or potential differing interests between such Indemnified Person or Indemnified Party and any other party represented by such counsel in such proceeding. The Indemnified Party or Indemnified Person shall cooperate fully with the indemnifying party in connection with any negotiation or defense of any such action or claim by the indemnifying party and shall furnish to the indemnifying party all information reasonably available to the Indemnified Party or Indemnified Person which relates to such action or claim. The indemnifying party shall keep the Indemnified Party or Indemnified Person fully apprised at all times as to the status of the defense or any settlement negotiations with respect thereto. No indemnifying party shall be liable for any settlement of any action, claim or proceeding effected without its written consent, provided, however, that the indemnifying party shall not unreasonably withhold, delay or condition its consent. No indemnifying party shall, without the consent of the Indemnified Party or Indemnified Person, consent to entry of any judgment or enter into any settlement or other compromise which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party or Indemnified Person of a release from all liability in respect to such claim or litigation. Following indemnification as provided for hereunder, the indemnifying party shall be subrogated to all rights of the Indemnified Party or Indemnified Person with respect to all third parties, firms or corporations relating to the matter for which indemnification has been made. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action shall not relieve such indemnifying party of any liability to the Indemnified Person or Indemnified Party under this Section 6, except to the extent that the indemnifying party is prejudiced in its ability to defend such action.

d. The indemnification required by this Section 6 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or Indemnified Damages are incurred. Any Person receiving a payment pursuant to this Section 6 that is later determined not to be entitled to such payment shall return such payment to the person making it.

e. The indemnity agreements contained herein shall be in addition to (i) any cause of action or similar right of the Indemnified Party or Indemnified Person against the indemnifying party or others, and (ii) any liabilities the indemnifying party may be subject to pursuant to applicable law.

7. CONTRIBUTION.

To the extent any indemnification by an indemnifying party is prohibited or limited by law, the indemnifying party agrees to make the maximum contribution with respect to any amounts for which it would otherwise be liable under Section 6 to the fullest extent permitted by law; provided, however, that: (i) no seller of Registrable Securities guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any seller of Registrable Securities who was not guilty of fraudulent misrepresentation; and (ii) contribution by any seller of Registrable Securities shall be limited in amount to the net amount of proceeds received by such seller from the sale of such Registrable Securities.

8. REPORTS AND DISCLOSURE UNDER THE SECURITIES ACT.

With a view to making available to the Investor the benefits of Rule 144 promulgated under the Securities Act or any other similar rule or regulation of the SEC that may at any time permit the Investor to sell securities of the Company to the public without registration ("Rule 144"), the Company agrees, at the Company's sole expense, so long as the Investor owns Registrable Securities, to use commercially reasonable efforts to:

- a. make and keep public information available, as those terms are understood and defined in Rule 144;
- b. file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act so long as the Company remains subject to such requirements and the filing of such reports and other documents is required for the applicable provisions of Rule 144;
- c. furnish to the Investor so long as the Investor owns Registrable Securities, promptly upon request, (i) a written statement by the Company that it has complied with the reporting and or disclosure provisions of Rule 144, the Securities Act and the Exchange Act, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested to permit the Investor to sell such securities pursuant to Rule 144 without registration; and
- d. take such additional action as is reasonably requested by the Investor to enable the Investor to sell the Registrable Securities pursuant to Rule 144, including, without limitation, delivering all such legal opinions, consents, certificates, resolutions and instructions to the Company's Transfer Agent as may be reasonably requested from time to time by the Investor and otherwise fully cooperate with Investor and Investor's broker to effect such sale of securities pursuant to Rule 144.

The Company agrees that damages may be an inadequate remedy for any breach of the terms and provisions of this Section 8 and that Investor shall, whether or not it is pursuing any remedies at law, be entitled to seek equitable relief in the form of a preliminary or permanent injunction, without having to post any bond or other security, upon any breach or threatened breach of any such terms or provisions.

9. ASSIGNMENT OF REGISTRATION RIGHTS.

The Company shall not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Investor; provided, however, that any transaction, whether by merger, reorganization, restructuring, consolidation, financing or otherwise, whereby the Company remains the surviving entity immediately after such transaction shall not be deemed an assignment. The Investor may not assign its rights under this Agreement without the prior written consent of the Company, other than to an affiliate of the Investor controlled by Jonathan Cope or Josh Scheinfeld, in which case the assignee must agree in writing to be bound by the terms and conditions of this Agreement.

10. AMENDMENT OF REGISTRATION RIGHTS.

No provision of this Agreement may be amended or waived by the parties from and after the date that is one (1) Business Day immediately preceding the initial filing of the Registration Statement with the SEC. Subject to the immediately preceding sentence, no provision of this Agreement may be (i) amended other than by a written instrument signed by both parties hereto or (ii) waived other than in a written instrument signed by the party against whom enforcement of such waiver is sought. Failure of any party to exercise any right or remedy under this Agreement or otherwise, or delay by a party in exercising such right or remedy, shall not operate as a waiver thereof.

11. MISCELLANEOUS.

a. A Person is deemed to be a holder of Registrable Securities whenever such Person owns or is deemed to own of record such Registrable Securities. If the Company receives conflicting instructions, notices or elections from two or more Persons with respect to the same Registrable Securities, the Company shall act upon the basis of instructions, notice or election received from the registered owner of such Registrable Securities.

b. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by facsimile or email (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party); or (iii) one (1) Business Day after deposit with a nationally recognized overnight delivery service, in each case properly addressed to the party to receive the same. The addresses, email addresses and facsimile numbers (if applicable) for such communications shall be:

If to the Company:

eFFECTOR Therapeutics, Inc.
142 North Cedros Avenue, Suite B
Solana Beach, CA 92075

Telephone:
E-mail:
Attention: Mike Byrnes, Chief Financial Officer

With a copy to (which shall not constitute notice or service of process):

Latham & Watkins LLP
12670 High Bluff Drive San Diego, CA 92130
Telephone: (858) 523-5400
E-mail: Matt.Bush@lw.com
Attention: Matthew Bush

If to the Investor:

Lincoln Park Capital Fund, LLC
440 North Wells, Suite 410
Chicago, IL 60654
Telephone: 312.822.9300
Facsimile: 312.822.9301
E-mail:
Attention: Josh Scheinfeld or Jonathan Cope

With a copy to (which shall not constitute notice or service of process):

K&L Gates, LLP
200 S. Biscayne Blvd., Ste. 3900
Miami, Florida 33131
Telephone: 305.539.3306
Facsimile: 305.358.7095
E-mail: clayton.parker@klgates.com
Attention: Clayton E. Parker, Esq.

or at such other address, email address and/or facsimile number and/or to the attention of such other person as the recipient party has specified by written notice given to each other party at least one (1) Business Day prior to the effectiveness of such change. Written confirmation of receipt (A) given by the recipient of such notice, consent, waiver or other communication, (B) mechanically or electronically generated by the sender's facsimile machine or email account containing the time, date, recipient facsimile number or email address, as applicable, or (C) provided by a nationally recognized overnight delivery service, shall be rebuttable evidence of personal service, receipt by facsimile, email or receipt from a nationally recognized overnight delivery service in accordance with clause (i), (ii) or (iii) above, respectively.

c. The corporate laws of the State of Delaware shall govern all issues concerning the relative rights of the Company and its stockholders. All other questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of and venue in the U.S. District Court for the Southern District of New York or, if that court does not have subject matter jurisdiction, in any state court located in the City and County of New York with competent jurisdiction, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address for such notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. If any provision

of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement in that jurisdiction or the validity or enforceability of any provision of this Agreement in any other jurisdiction. **EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION HEREWITH OR ARISING OUT OF THIS AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

d. This Agreement, the Purchase Agreement, and the other Transaction Documents constitute the entire agreement among the parties hereto with respect to the subject matter hereof and thereof. There are no restrictions, promises, warranties or undertakings among the parties hereto, other than those set forth or referred to herein and therein. This Agreement, the Purchase Agreement, and the other Transaction Documents supersede all prior agreements and understandings among the parties hereto with respect to the subject matter hereof and thereof.

e. Subject to the requirements of Section 9, this Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties hereto.

f. The headings in this Agreement are for convenience of reference only and shall not limit or otherwise affect the meaning hereof.

g. This Agreement may be executed in identical counterparts, each of which shall be deemed an original but all of which shall constitute one and the same agreement. This Agreement, once executed by a party, may be delivered to the other party hereto by facsimile transmission or by e-mail in a ".pdf" format data file of a copy of this Agreement bearing the signature of the party so delivering this Agreement.

h. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

i. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent and no rules of strict construction will be applied against any party.

j. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

12. TERMINATION

The obligations of the Company contained in Sections 2, 3, 5 and 8 of this Agreement shall terminate in their entirety upon the earlier of (i) the date on which the Investor shall have sold all the Securities and no Available Amount remains under the Purchase Agreement and (ii) 180 days following the earlier of (A) the Maturity Date and (B) the date of termination of the Purchase Agreement; provided that as long as any Securities remain unsold by the Investor, the Company must make available "current public information" pursuant to Rule 144 promulgated under the Securities Act until the Investor may sell the Securities thereunder without any restrictions (including any restrictions under Rule 144(c) or Rule 144(i)).

* * * * *

IN WITNESS WHEREOF, the parties have caused this Registration Rights Agreement to be duly executed as of day and year first above written.

THE COMPANY:

EFFECTOR THERAPEUTICS, INC.

By: /s/ Michael Byrnes

Name: Michael Byrnes

Title: Chief Financial Officer

BUYER:

LINCOLN PARK CAPITAL FUND, LLC

BY: LINCOLN PARK CAPITAL, LLC

BY:

By: /s/ Jonathan Cope

Name: Jonathan Cope

Title: President

EXHIBIT A

**FORM OF
TRANSFER AGENT INSTRUCTIONS**

[_____] , 2022

VIA EMAIL TO: [+]

Continental Stock Transfer & Trust Company
1 State Street, 30th Floor
New York, New York 10004
Attn: Stacy Aquil

Re: EFFECTOR THERAPEUTICS, INC.

Ladies and Gentlemen:

Reference is made to that certain Purchase Agreement (the "Purchase Agreement"), dated as of January 24, by and between **EFFECTOR THERAPEUTICS, INC.**, a Delaware corporation (the "Company"), and **LINCOLN PARK CAPITAL FUND, LLC** (the "Investor"), pursuant to which the Company may sell to the Investor up to Fifty Million Dollars (\$50,000,000) of the Company's common stock, par value \$0.0001 per share (the "Common Stock"). In connection with the transactions contemplated by the Purchase Agreement, the Company has filed a registration statement on Form S-1 (File no. 333-[____]) (the "Registration Statement") (with the U.S. Securities & Exchange Commission (the "SEC")) to register for resale under the Securities Act of 1933, as amended, the following shares of Common Stock:

- (1) Up to 7,990,987 shares of Common Stock to be issued upon purchase from the Company by the Buyer from time to time (the "Purchase Shares").
- (2) 142,939 shares of Common Stock which have been issued to the Buyer as a commitment fee (the "Commitment Shares").

We have delivered to you herewith a true and correct copy of resolutions adopted by the Company's Board of Directors authorizing the issuances of Common Stock described herein. No further consent or authorization is required by the Company, its Board of Directors or its stockholders in connection with the transactions contemplated by the Purchase Agreement.

Promptly after the SEC declares effective the Registration Statement, the Company's counsel shall deliver to you a notice that the Registration Statement has been declared effective by the SEC in the form of Exhibit I hereto (the "Notice of Effectiveness"). Provided that the Company's counsel has delivered to you the Notice of Effectiveness set forth in Exhibit I attached hereto, this letter shall serve as our irrevocable authorization and direction to:

- (1) remove any restricted stock transfer legend on the Commitment Shares and credit via the Depository Trust Company (“DTC”) Fast Automated Securities Transfer Program, 142,939 shares of Common Stock as Commitment Shares to the Investor’s balance account with DTC through its Deposit Withdrawal At Custodian (“DWAC”)

The information that shall be used for the transfer of shares is as follows:

- Broker Name: Tradestation Securities, LLC
- Broker DTC Participant Code: 271
- Account Number: 192-10467
- Account Name: Lincoln Park Capital Fund, LLC

- (2) issue Purchase Shares without any restricted stock transfer legend, to the Investor from time to time upon surrender to you of a properly completed and duly executed Purchase Confirmation, in the form attached hereto as Exhibit II.

Specifically, upon receipt by the Company of a copy of a Purchase Confirmation, the Company shall as soon as practicable, but in no event later than one (1) Business Day (as defined below) after receipt of such Purchase Confirmation, send, via facsimile, a copy of the Purchase Confirmation to you, which Purchase Confirmation shall constitute an irrevocable instruction to you to process such Purchase Confirmation in accordance with the terms of these instructions and the Purchase Confirmation. Upon your receipt of a copy of the executed Purchase Confirmation, you shall use your best efforts to, within one (1) Business Day following the date of your receipt of the Purchase Confirmation, credit via the DTC Fast Automated Securities Transfer Program, upon the request of the Investor, such aggregate number of shares of Common Stock to which the Investor shall be entitled to the Investor’s balance account with DTC through its DWAC system for the number of shares of Common Stock to which the Investor shall be entitled as set forth in the Purchase Confirmation provided the Investor causes its bank or broker to initiate the DWAC transaction. (“Business Day” shall mean any day on which the Company’s principle trading market is open for customary trading.)

Provided that the Company’s counsel has delivered to you the Notice of Effectiveness set forth in Exhibit I attached hereto, the Company hereby confirms to you and the Investor that the Purchase Shares and the Commitment Shares shall not bear any legend restricting transfer of the Purchase Shares and Commitment Shares thereby and should not be subject to any stop-transfer restrictions and shall otherwise be freely transferable on the books and records of the Company; provided however, that if for any reason the Company is required to issue Purchase Shares and Commitment Shares which have not been registered under the Securities Act of 1933, as amended, then the certificates for such Purchase Shares and Commitment Shares shall bear the following legend and no other legend whatsoever:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS, UNLESS SOLD PURSUANT TO: (1) RULE 144 UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (2) AN OPINION OF HOLDER’S COUNSEL, IN A CUSTOMARY FORM, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR APPLICABLE STATE SECURITIES LAWS.

The Company hereby confirms to you and the Investor that no instructions other than as contemplated herein will be given to you by the Company with respect to the Purchase Shares and the Commitment Shares.

Please be advised that the Investor is relying upon this letter as an inducement to purchase Common Stock under the Purchase Agreement and, accordingly, the Investor is a party to the agreements set forth in this letter.

* * * * *

Very truly yours,

EFFECTOR THERAPEUTICS, INC.

By: _____
Name: Michael Byrnes
Title: Chief Financial Officer

ACKNOWLEDGED AND AGREED:

**CONTINENTAL STOCK TRANSFER & TRUST
COMPANY**

By: _____
Name: _____
Title: _____

INVESTOR:

**LINCOLN PARK CAPITAL FUND, LLC
BY: LINCOLN PARK CAPITAL, LLC
BY:**

By: _____
Name: _____
Title: _____

EXHIBIT I
FORM OF
NOTICE OF EFFECTIVENESS
OF REGISTRATION STATEMENT

[____], 2022

VIA EMAIL TO: [•]

Continental Stock Transfer & Trust Company
1 State Street, 30th Floor
New York, New York 10004
Attn: Stacy Aquí

Re: EFFECTOR THERAPEUTICS, INC.

Ladies and Gentlemen:

We are counsel to **EFFECTOR THERAPEUTICS, INC.**, a Delaware corporation (the "Company"), and have represented the Company in connection with that certain Purchase Agreement (the "Purchase Agreement"), dated as of January 24, by and between the Company and **LINCOLN PARK CAPITAL FUND, LLC** (the "Investor"), pursuant to which the Company may sell to the Investor up to Fifty Million Dollars (\$50,000,000) of the Company's common stock, par value \$0.0001 per share (the "Common Stock"). Pursuant to the Purchase Agreement, the Company also has entered into a Registration Rights Agreement, dated as of January [•], 2022, with the Investor (the "Registration Rights Agreement") pursuant to which the Company agreed, among other things, to register with the U.S. Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended (the "Securities Act") the shares of Common Stock described below.

On January [____], 2022, the Company filed a Registration Statement (File No. 333-[____]) (the "Registration Statement") with the SEC to register for resale the following securities:

- (1) Up to 7,990,987 shares of Common Stock to be issued upon purchase from the Company by the Investor from time to time (the "Purchase Shares").
- (2) 142,939 shares of Common Stock which have been issued to the Investor as a commitment fee (the "Commitment Shares").

In connection with the foregoing, we advise you that a member of the SEC's staff has advised us by telephone that the SEC has entered an order declaring the Registration Statement effective under the Securities Act at [____] [A.M./P.M.] on February [____], 2022 and we have no knowledge, based solely on our review of the Commission's "Stop Orders" web page (<http://sec.gov/litigation/stoporders.shtml>), that any stop order suspending its effectiveness has been issued or that any proceedings for that purpose are pending before, or threatened by, the SEC and the Purchase Shares and the Commitment Shares are available for resale under the Securities Act pursuant to the Registration Statement and may be issued without any restrictive legend.

Very truly yours,
Latham & Watkins LLP

By: _____

CC: Lincoln Park Capital Fund, LLC
EFFECTOR Therapeutics, Inc.

EXHIBIT II
FORM OF PURCHASE CONFIRMATION

Reference is made to the Purchase Agreement (the "**Purchase Agreement**") between **EFFECTOR THERAPEUTICS, INC.** (the "**Company**") and **LINCOLN PARK CAPITAL FUND, LLC** ("**LPC**") dated January 24, 2022. In accordance with and pursuant to the Purchase Agreement, LPC hereby purchases shares of Common Stock, par value \$0.0001 per share (the "**Common Stock**"), of the Company for the Purchase Amount indicated below as of the date specified below.

Regular, Accelerated or Additional Accelerated Purchase	
Purchase Date:	_____
Purchase Amount:	\$ _____
Price:	_____
_____ Low Sale Price on date hereof	
_____ Average of the lowest 3 Closing Sale Prices for the previous 10 Trading Days	
Accelerated Purchase Price	
_____ 97% of Applicable VWAP	
_____ Closing Sale Price	
Additional Accelerated Purchase Price	
_____ 97% of Applicable VWAP	
_____ Closing Sale Price	
	\$ _____
Purchase Amount (No. Shares):	_____
TOTAL SHARES TO BE ISSUED:	_____
After this purchase:	
Aggregate Purchase Shares purchased to date:	_____
Remaining Registered Purchase Shares:	_____
Aggregate Purchase Amount for all purchases to date:	\$ _____
Remaining Available Amount:	\$ _____

The above referenced shares **shall not bear any legend restricting transfer** and should be immediately sent to LPC via:

_____ DWAC (Broker DTC Participant Code: _____, LPC's Account Number _____)

Issue to:

Lincoln Park Capital Fund, LLC
440 North Wells, Suite 410
Chicago, IL 60654
Attention: Josh Scheinfeld/Jonathan Cope

Lincoln Park Capital Fund, LLC

Authorized Signature: _____
Name: _____

Confirmation of Purchase by Company:

The undersigned, on behalf of the Company, hereby confirms the information set forth herein and hereby authorizes the issuance of Common Stock to LPC in accordance with the information set forth above and further confirms:

- (i) As of the date hereof, (a) the Registration Statement does not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading, (b) the Prospectus does not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading and (c) no event has occurred as a result of which it is necessary to amend or supplement the Registration Statement or the Prospectus in order to make the statements therein not untrue or misleading for clauses (a) and (b) above, respectively, to be true and correct.
- (ii) The effectiveness of the Registration Statement has not lapsed, and the Registration Statement and the Prospectus are current and available to LPC for the resale of any or all of the Purchase Shares and Commitment Shares to be issued to LPC under the Purchase Agreement.
- (iii) The Company confirms that neither it nor any other person acting on its behalf has provided LPC or its agents or counsel with any information that constitutes or could reasonably be expected to constitute material, nonpublic information.

EFFECTOR THERAPEUTICS, INC.

Authorized Signature:

Name:

Title:

Phone #:

EXHIBIT B

**Information About The Investor Furnished To The Company By The Investor
Expressly For Use In Connection With The Registration Statement**

Information With Respect to Lincoln Park Capital

“As of the date of the Purchase Agreement, Lincoln Park Capital Fund, LLC, beneficially owned [*] shares of Common Stock of eFFECTOR Therapeutics, Inc. Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, the manager of Lincoln Park Capital Fund, LLC, are deemed to be beneficial owners of all of the shares of Common Stock owned by Lincoln Park Capital Fund, LLC. Messrs. Cope and Scheinfeld have shared voting and investment power over the shares being offered under the prospectus filed with the SEC in connection with the transactions contemplated under the Purchase Agreement. Lincoln Park Capital, LLC is not a licensed broker dealer or an affiliate of a licensed broker dealer.”



Next Generation Targeted Therapy for Cancer

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Disclaimer

FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding the future results of operations and financial position of eFFECTOR Therapeutics, Inc. (eFFECTOR or the Company), the Company's business strategy, prospective products, product approvals, research and development costs, timing and likelihood of success, plans and objectives of management for future operations, future results of current and anticipated products and expected use of the Company's capital resources, are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "may", "believe", "anticipate", "could", "should", "estimate", "expect", "intend", "plan", "project", "will", "forecast" and similar terms. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, but not limited to, risks associated with the clinical development and process for obtaining regulatory approval of eFFECTOR's product candidates, such as potential delays in the commencement, enrollment and completion of clinical trials; the risk that results seen in preclinical studies and earlier clinical studies may not predict the results seen in future clinical trials; and other risks included under the header "Risk Factors" in the registration statement on Form S-1 which was initially filed by the Company with the Securities and Exchange Commission (SEC) on September 23, 2021. Moreover, the Company operates in a very competitive and rapidly changing environment. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond the Company's control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in these forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements in this presentation, which speak only as of the date made. Except as required by applicable law, the Company does not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

MARKET AND INDUSTRY DATA

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions, and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

CLINICAL INVESTIGATION/FDA

This presentation concerns product candidates that are under clinical investigation and which have not yet been approved for marketing by the U.S. Food and Drug Administration (FDA). They are currently limited by Federal law to investigational use, and no representation is made as to their safety or effectiveness for the purposes for which they are being investigated.

TRADEMARKS

This presentation contains trademarks, service marks, and trade names of the Company and other companies, which are the property of their respective owners.



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Pipeline and Business Update Conference Call

Participants

- Steve Worland, Ph.D., President & CEO
- Premal Patel, M.D., Ph.D., Chief Medical Officer
- Mike Byrnes, Chief Financial Officer
- Alana McNulty, Chief Business Officer

Agenda

- Introductory Remarks and Overview
- Pipeline Update
- Business Update
- Closing Remarks
- Q&A



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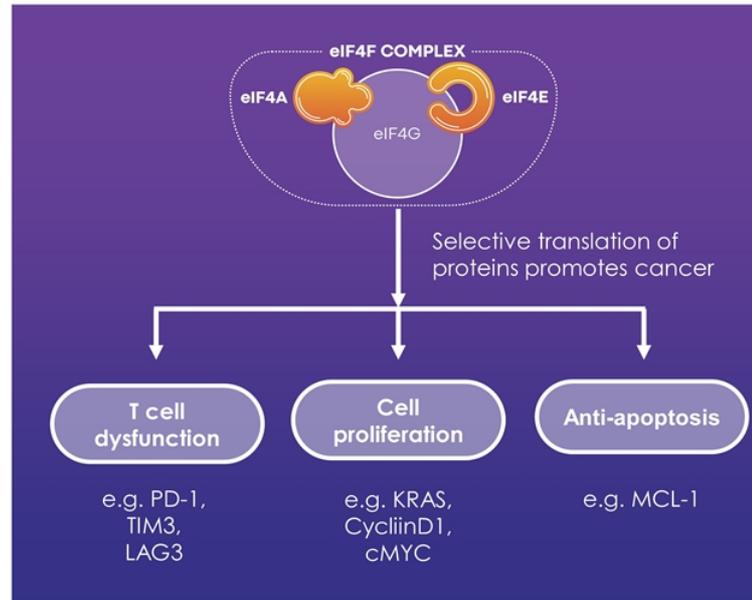
Major Unmet Need in Oncology: Therapeutic Strategies Designed to Outsmart Cancer

Cancer cells evolve rapidly, resulting in rapid proliferation, anti-apoptosis, and immune evasion

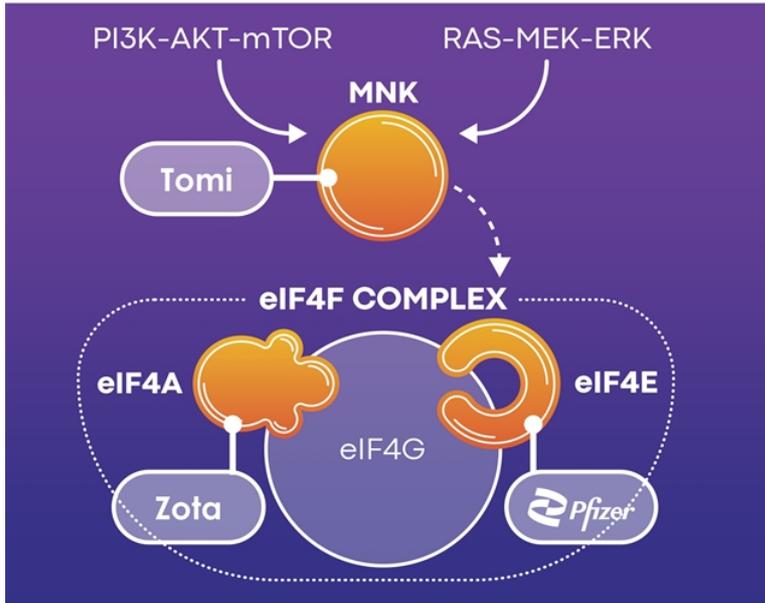
Improved cancer treatments require:

- Shutting down multiple drivers of cancer simultaneously
- Reactivating the immune system to eliminate tumors
- Preventing resistance to existing treatments
 - Delay need for toxic chemotherapy

Inhibiting eIF4F blocks many hallmarks of cancer



STRI Platform Overview: Targeting Key Node in Cancer



- Novel targets located at a key node where two important cancer pathways – RAS-MEK and PI3K-AKT – converge and drive production of multiple disease-driving proteins
- Multiple potential advantages of inhibiting targets related to the eIF4F complex
 - ✓ Simultaneously decrease production of multiple cancer-driving proteins before they are synthesized
 - ✓ Strong combination potential due to inhibition of key proteins expressed in resistance to other single oncoprotein-targeted drugs
- Invented 3 novel product candidates with strong intellectual property

Overview of Today's Updates

- **Enhanced pipeline strategy for tomivosertib**
 - Phase 2b KICKSTART trial of tomivosertib in NSCLC amended to include almost all patients with PD-L1 status $\geq 1\%$, representing **\$9 billion market opportunity**
 - **Enrollment ongoing:** cohort of patients with PD-L1 $\geq 50\%$ receiving tomi or placebo as frontline in combo with pembro
 - **Now open to enroll:** cohort of patients with PD-L1 $\geq 1\%$ receiving tomi or placebo combined with pembro-based frontline maintenance* after completing platinum chemo
 - **Discontinuing:** cohort of patients with PD-L1 $\geq 50\%$ receiving tomi or placebo combined with pembro as frontline extension after progression on pembro
- **First patient dosed in zotatifin Phase 2 expansion cohorts in ER+ metastatic breast cancer and KRAS mutant NSCLC**
- **Company enters into investment agreement with Lincoln Park Capital for up to \$50 million over 36 months**

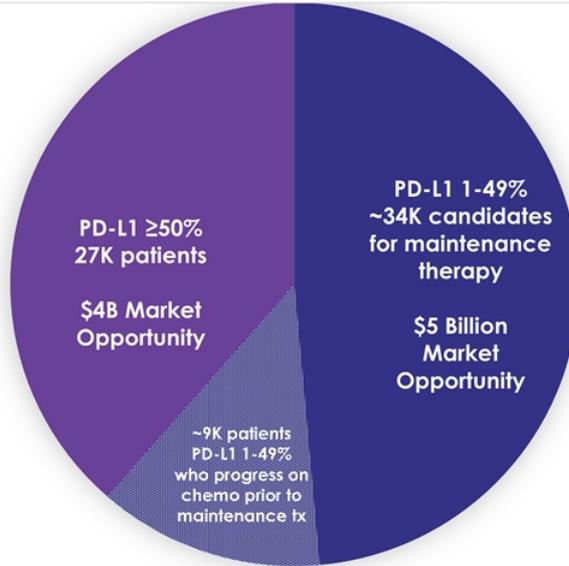


*frontline maintenance defined as pembro for squamous and pembro+pemetrexed for non-squamous

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\$9 Billion Market Opportunity for Tomivosertib

SOC is anti-PD-(L)1 monotherapy



SOC is chemo + anti-PD-(L)1 followed by anti-PD-(L)1 maintenance

Addressing the Large Majority of 70,000 U.S. Patients with Metastatic NSCLC



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Pipeline Update

Program (Target)	Discovery	Preclinical	Phase 1	Phase 2a	Phase 2b	Phase 3	Global Rights	Anticipated Milestones
Tomivosertib (MNKi)	NEW COHORT: NSCLC – 1L in combo with pembro and platinum chemotherapy						eFFECTOR	H1 2023: Topline data readout
	NSCLC – 1L in combo with pembro							H1 2023: Topline data readout
	DISCONTINUED: NSCLC – 1L extension in combo with pembro							Discontinued
	mBC - SU2C combination trial*							PD biomarkers
Zotatifin (eIF4Ai)	Solid Tumors RTK BC (DOSED) and KRAS NSCLC (SCREENING)						eFFECTOR	H1 2022: Initial ORR data readout
	Anti-SARS-CoV-2 Dose Escalation							
eIF4Ei	Solid Tumors						 <small>eFFECTOR Option to Co-Promote/ Profit Share in US</small>	

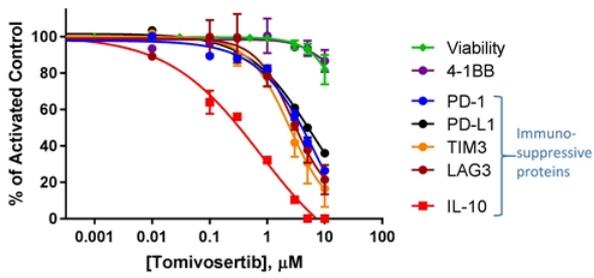


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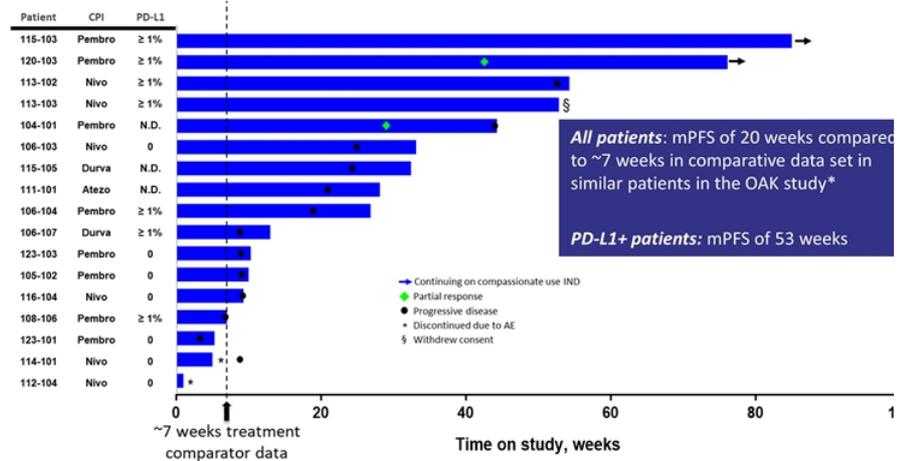
*Led by McGill University; funded by Stand Up to Cancer (SU2C) grant

Tomivosertib Improved T Cell Function Preclinically and Extended PFS in Phase 2A Trial

Preclinical data:



Clinical data:



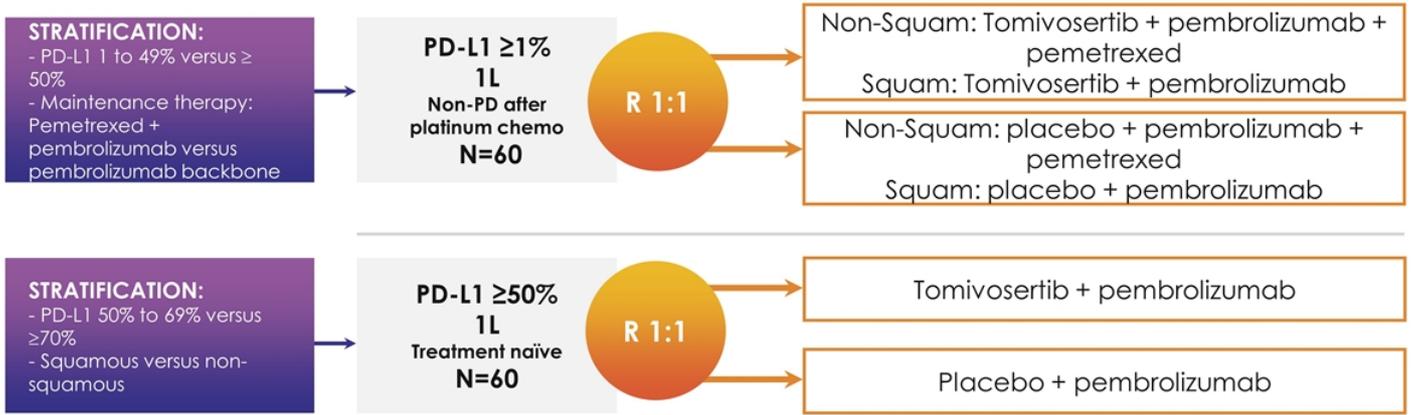
*FOR ILLUSTRATIVE PURPOSES ONLY: Treatment Beyond Progression (TBP) cohort; Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across trials

Data through study completion in September 2020
Patients 115-103 and 120-103 continued treatment pa study completion on Single Patient Expanded Access IN



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KICKSTART: Randomized, Double-blind, Phase 2b Trial Updated to Include 1L NSCLC Patients PD-L1 $\geq 1\%$



- Progression Free Survival (PFS) is primary endpoint
- Trial design enriched for PD-L1+ patients who received the most benefit in the P2a trial



• **Topline data readout from each cohort anticipated 1H 2023**



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Zotatifin Ph1/2 Update

Part 1: Ph 1 - dose escalation

Key findings in Part 1: 1st in human study

- RP2D 0.07 mg/Kg IV weekly,
2 weeks on / 1 week off
- Generally well tolerated - DLT: anemia.
AEs were manageable, reversible
- Target exposure was achieved
half-life in blood was ~4days

Part 2: Ph 2a - dose expansion cohorts

Ongoing	Monotherapy ER+ FGFR amplified Metastatic Breast Cancer
	Combination ER+ Metastatic Breast Cancer (+fulvestrant)
New Cohorts	Combination ER+ Metastatic Breast Cancer (+fulvestrant, + abemaciclib)
	Combination KRAS G12C NSCLC (+sotorasib)



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2022 Pipeline

Program (Target)	Discovery	Preclinical	Phase 1	Phase 2a	Phase 2b	Phase 3	Global Rights	Anticipated Milestones
Tomivosertib (MNKi)	NEW COHORT: 1L NSCLC PD-L1 \geq 1% –combo with pembro post platinum chemotherapy						eFFECTOR	H1 2023: Topline data readout
	1L NSCLC PD-L1 \geq 50%– 1L in combo with pembro							H1 2023: Topline data readout
	mBC - SU2C combination trial*							PD biomarkers
Zotatifin (eIF4Ai)	Solid Tumors ER+ BC and KRAS NSCLC						eFFECTOR	H1 2022: Initial ORR data readout
	Anti-SARS-CoV-2 Dose Escalation							
eIF4Ei	Solid Tumors						 <small>eFFECTOR Option to Co-Promote/ Profit Share in US</small>	



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*Led by McGill University; funded by Stand Up to Cancer (SU2C) grant

\$50 Million Committed Investment with Lincoln Park Capital

Summary of Terms

- Up to \$50,000,000 can be accessed at eFFECTOR's sole discretion
- Initial draw of \$3,000,000 upon effectiveness of S-1
- Facility has term of 36 months

Financial Strength

- Current cash position of eFFECTOR anticipated to fund all programs, including through top-line data for both cohorts in KICKSTART trial
- Committed investment aligns with long-term strategy for value creation



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Multiple Upcoming Clinical Milestones

Anticipated Milestones		2022		2023		2024
		1H	2H	1H	2H	
Tomivosertib	Top line data from P2b NSCLC frontline with pembro			●		
	Top line data from P2b NSCLC frontline maintenance post platinum chemotherapy with pembro			●		
	Initiate P3 in NSCLC					●
Zotatifin	Initial ORR data from P2a expansion cohorts	●				
	Top line data from P2a expansion cohorts		●			
	Initiate randomized P2b combination studies			●		
	Initiate potential single arm P3 registration study			●		

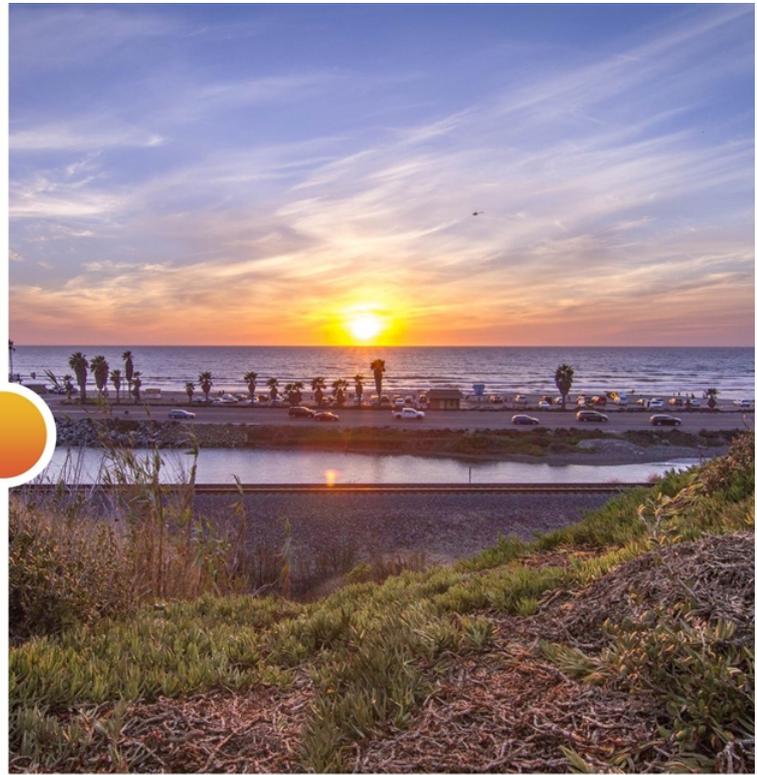


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Q&A



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