

Prospectus Supplement No. 3
(To Prospectus dated March 16, 2023)

eFFECTOR Therapeutics, Inc.



This prospectus supplement updates, amends and supplements the prospectus dated March 16, 2023 (the “Prospectus”), which forms a part of our Registration Statement on Form S-1 (Registration No. 333-262339). 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 May 25, 2023. 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 May 24, 2023, the closing price of our common stock was \$0.6945 and the closing price of our warrants was \$0.1500.

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 May 25, 2023.

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): May 25, 2023

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)

(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 8.01 Other Events.

On May 25, 2023, eFFECTOR Therapeutics, Inc. (the “Company”) announced positive interim data updates from a Phase 2 expansion cohort evaluating zotatifin combined with fulvestrant and abemaciclib (“ZFA triplet”) in patients with ER+ metastatic breast cancer (“mBC”). These data, as well as initial data from further dose escalation, will be presented as part of a poster presentation at the American Society of Clinical Oncology Annual Meeting in Chicago, Illinois.

New interim data were presented on the fully enrolled expansion cohort of patients (n=20) who received the ZFA triplet with zotatifin dosed at 0.07 mg/kg on Days 1 and 8 of 21-day cycles. Patients were heavily pre-treated, having received a median of four prior lines of therapy for metastatic disease. Five out of 19 (26%) RECIST-evaluable patients achieved a partial response (“PR”), including four confirmed and one unconfirmed. All five patients who achieved a PR had previously progressed on prior CDK4/6 and fulvestrant treatments, and all 5 had received one or more prior lines of chemotherapy. The disease control rate (“DCR”), reflecting patients with at least one on-treatment scan showing PR or stable disease (“SD”), was 14 of 19 (74%). PRs were seen in patients with and without mutations in the ESR1 and PIK3CA genes. As of the data cutoff date, 4 patients remained on therapy and progression free survival (“PFS”) as well as clinical benefit rate (“CBR”) data are not yet mature. The ZFA triplet was generally well tolerated, with 3 patients discontinuing due to adverse events (“AEs”) of any cause, and the large majority of AEs being Grade 1 or 2. The most frequent Grade 3 AEs were diarrhea in 3 of 20 (15%) patients, similar to the 13% frequency reported in the registrational Monarch 2 trial for abemaciclib and fulvestrant, and dyspnea in 2 of 20 (10%) patients.

New data were also reported for patients in resumed dose escalation cohorts utilizing zotatifin combined with fulvestrant (“ZF doublet”). In the one fully enrolled cohort, wherein patients received zotatifin dosed at 0.1 mg/kg every other week (“Q2W”) combined with fulvestrant, 1 of 3 (33%) patients achieved a PR on the first on-treatment scan, which was confirmed on the second on-treatment scan that occurred after the data cutoff, and remained on study. This patient had received four lines of prior therapy for metastatic disease, with progressive disease (“PD”) being the best overall response (“BOR”) to all four prior lines. Dose escalation is continuing at 0.14 mg/kg Q2W and 0.07 mg/kg once weekly (“QW”). Zotatifin has been generally well tolerated in dose escalation cohorts, with no dose limiting toxicities or serious adverse events observed.

Data for the ZF doublet with zotatifin at 0.07 mg/kg dosed on Days 1 and 8 of 21-day cycles, originally reported on January 5, 2023, were also updated. The patient with a confirmed PR showed a duration of response (“DOR”) of approximately 13 months. The patient with prolonged SD remained on study at 12 months. The Company expects to report topline data from completed dose escalation cohorts evaluating ZF in the second half of 2023.

Data on changes in circulating tumor DNA (“ctDNA”) were also updated from January 5, 2023, when the Company reported a dose-dependent decrease in ctDNA in patients receiving zotatifin-based regimens. In the new data set, 9 patients who received the ZFA triplet at 0.07 mg/kg zotatifin had both pre- and on-treatment samples available for ctDNA analysis. Four additional patients came off study prior to the protocol-specified time to collect on-treatment ctDNA (Day 43). Eight patients had decreases in ctDNA of greater than 50%, representing 89% of the patients with on-treatment samples available for analysis, and 62% of patients who either had available on-treatment samples or who had discontinued prior to collection of on-treatment samples. The specific alleles observed to be decreased or eliminated in on-treatment ctDNA, including mutations in ESR1 and PIK3CA genes, reflect common mechanisms of resistance to endocrine therapy in ER+ BC and are consistent with zotatifin’s mechanism of action maintaining sensitivity after resistance to endocrine therapy has emerged. The patient who achieved a confirmed PR in the ZF dose escalation group also eliminated detectable ctDNA at Day 29, including mutant alleles of ESR1 and ERBB2 genes, after having received only two doses of zotatifin.

All data was presented as of a data cut-off date of May 3, 2023.

Forward-Looking Statements

The Company cautions you that statements contained in this report regarding matters that are not historical facts are forward-looking statements. The forward-looking statements are based on our current beliefs and expectations and include, but are not limited to, statements regarding: the potential therapeutic benefits of zotatifin, including based on its mechanism of action; and the future clinical development and data readouts of zotatifin and the timing thereof. Actual results may differ from those set forth in this report due to the risks and uncertainties inherent in our business, including, without limitation: interim results of a clinical trial are not necessarily indicative of final results and one or more of the clinical outcomes may materially change as patient enrollment continues, following more comprehensive reviews of the data and as more patient data becomes available, including the risk that unconfirmed responses may not ultimately result in confirmed responses to treatment after follow-up evaluations; potential delays in the commencement, enrollment and completion of clinical trials; our 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 our clinical trials and preclinical studies for our product candidates is uncertain; we may use our capital resources sooner than expected and they may be insufficient to allow clinical trial readouts; regulatory developments in the United States and foreign countries; unexpected adverse side effects or inadequate efficacy of our product candidates that may limit their development, regulatory approval and/or commercialization, or may result in recalls or product liability claims; our ability to obtain and maintain intellectual property protection for our product candidates; and other risks described in our prior filings with the Securities and Exchange Commission. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and we undertake 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.

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: May 25, 2023

By: /s/ Michael Byrnes

Name: Michael Byrnes

Title: Chief Financial Officer