

Prospectus Supplement
(To Prospectus dated September 9, 2022)

\$50,000,000



Common Stock

This prospectus supplement amends and supplements the information in the prospectus, dated September 9, 2022, filed with the Securities and Exchange Commission as a part of our registration statement on Form S-3 (File No. 333-267221) (the "Prospectus") on September 1, 2022, and declared effective on September 9, 2022, relating to the offer and sale of shares of our common stock, par value \$0.0001 per share, pursuant to that certain Controlled Equity OfferingSM Sales Agreement, dated September 1, 2022 (the "Sales Agreement"), by and between the Company and Cantor Fitzgerald & Co. ("Cantor"). This prospectus supplement is not complete without, and may only be delivered or utilized in connection with, the Prospectus and any future amendments or supplements thereto.

We are filing this prospectus supplement to amend the Prospectus because we are no longer subject to General Instruction I.B.6. of Form S-3, which limits the amounts that we may sell under the registration statement of which this prospectus supplement and the Prospectus are a part. We currently may offer and sell shares of our common stock having an aggregate offering price of up to \$50,000,000 under the Sales Agreement. If we become subject to the offering limits of General Instruction I.B.6 in the future, we will file another prospectus supplement.

This prospectus supplement should be read in conjunction with the Prospectus, and is qualified by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the Prospectus. This prospectus supplement is not complete without, and may only be delivered or utilized in connection with, the Prospectus and any future amendments or supplements thereto. Through August 7, 2023, we have sold 889,800 shares of our common stock for aggregate gross proceeds of approximately \$0.5 million in accordance with the Sales Agreement under the Prospectus. Consequently, up to approximately \$49.5 million remains available under the Sales Agreement pursuant to this prospectus supplement.

Our common stock is listed on the Nasdaq Capital Market under the symbol "EFTR." The aggregate market value of our common stock held by non-affiliates as of July 31, 2023 pursuant to General Instruction I.B.6 of Form S-3 is \$84.4 million, which was calculated based on 60,695,500 shares of our common stock outstanding held by non-affiliates and at a price of \$1.39 per share, the closing price of our common stock on June 6, 2023. In accordance with the terms of the Sales Agreement, we are registering the offer and sale of shares of our common stock having an aggregate offering price up to \$50,000,000 from time to time through or to Cantor acting as our agent or principal. The compensation to Cantor for sales of common stock sold pursuant to the Sales Agreement will be up to 3.0% of the gross proceeds of any shares of common stock sold under the Sales Agreement.

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012 and a smaller reporting company as defined under Rule 405 of the Securities Act, and, as such, are subject to certain reduced public company reporting requirements. See "Prospectus Summary—Implications of Being an Emerging Growth Company and a Smaller Reporting Company" on page S-5 of the Prospectus.

Investing in our common stock involves a high degree of risk. Before making an investment decision, please read the information under the heading "Risk Factors" beginning on page S-7 of the Prospectus and in the documents incorporated by reference into this prospectus supplement and the Prospectus.

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



The date of this prospectus supplement is August 8, 2023.